

R version 3.4.1 (2017-06-30) -- "Single Candle"
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Platform: x86_64-apple-darwin15.6.0 (64-bit)

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Natural language support but running in an English locale

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[R.app GUI 1.70 (7375) x86_64-apple-darwin15.6.0]

[History restored from /Users/mbuntaine/.Rapp.history]

```
> #####  
> #####  
> #Replication code for:  
>  
> #Mark T. Buntaine & Lauren Prather  
> #Preferences for Domestic Action Over International Transfers in Global Climate Policy  
> #Journal of Experimental Political Science, forthcoming.  
>  
> #Mark Buntaine contact (as of October 2017): buntaine@bren.ucsb.edu  
> #Lauren Prather contact (as of October 2017): lprather@ucsd.edu  
>  
> #Compiled using R Version 3.4.1 (version "Single Candle") on Mac running OS X 10.12.6  
> #####  
> #####  
>  
> #####  
> ###Packages  
> #####  
> library(nnet) #version 7.3-12  
> library(ri) #version 0.9  
> library(ggplot2) #version 2.2.1  
> library(MASS) #version 7.3-47  
> library(psc1) #version 1.5.1  
Classes and Methods for R developed in the  
Political Science Computational Laboratory  
Department of Political Science  
Stanford University  
Simon Jackman  
hurdle and zeroinfl functions by Achim Zeileis  
> library(boot) #version 1.3-20  
> library(nnet) #version 7.3-12  
> library(stargazer) #version 5.2
```

Please cite as:

Hlavac, Marek (2015). stargazer: Well-Formatted Regression and Summary Statistics Tables.
R package version 5.2. <http://CRAN.R-project.org/package=stargazer>

```
> library(AER) #version 1.2-5  
Loading required package: car
```

Attaching package: 'car'

The following object is masked from 'package:boot':

logit

```
Loading required package: lmtest  
Loading required package: zoo
```

Attaching package: 'zoo'

The following objects are masked from 'package:base':

as.Date, as.Date.numeric

```
Loading required package: sandwich  
Loading required package: survival
```

Attaching package: 'survival'

The following object is masked from 'package:boot':

aml

```
> library(reshape2) #version 1.4.2
> library(plyr) #version 1.8.4
> library(cowplot) #version 0.8.0
```

Attaching package: 'cowplot'

The following object is masked from 'package:ggplot2':

ggsave

```
>
> #####
> ##Setting up data from Experiment 1
> #####
>
> data <- read.csv("~/Google Drive/Climate Transfers project/ClimateTransfer_MTurkData_coded.csv", stringsAsFactors=FALSE)
> data <- subset(data,consent==2 | is.na(consent)) #Removing subjects who decline to participate after reading consent
>
> data$effect1 <- ifelse(data$effect1=="effect",1,data$effect1)
> data$effect1 <- ifelse(data$effect1=="no effect",0,data$effect1) #These two lines make 0 the no cost-effectness and 1 the cost-
effectness treatments
> data$effect1 <- as.numeric(data$effect1)
>
> data$country <- ifelse(data$country=="the United States","US",data$country)
> data$country <- factor(data$country, levels=c("US","India","China"))
>
> data$wri.stated <- ifelse(data$wri.stated==2,0,data$wri.stated) #This transforms binary variable to expected values
> data$wri.bonus.W <- ifelse(data$wri.stated==1,1,10) #This is the reverse probability of sampling, which re-weights the sample because
only 10% of disapproving subjects selected into the bonus portion
>
> data$wri.bonus <- ifelse(data$wri.bonus==2,0,data$wri.bonus) #This transforms binary variable to expected values
> data$wri.bonus.confirm <- ifelse(data$wri.bonus.confirm==2,0,data$wri.bonus.confirm) #This transforms binary variable to expected
values
> data$wri.bonus.confirm.NArm <- ifelse(is.na(data$wri.bonus.confirm),0,data$wri.bonus.confirm)
> data$wri.fullbonus.final <- ifelse(is.na(data$wri.bonus.confirm),NA,data$wri.bonus.confirm.NArm) #This adds in the people who stated "no" to
the final confirmed step for those who said "yes"
>
> data$wri.bonus.amount <- ifelse(data$wri.bonus>=0,0,0)
> data$wri.bonus.amount <- ifelse(!is.na(data$wri.fullbonus.final) & data$wri.fullbonus.final==1,50,data$wri.bonus.amount)
> data$wri.bonus.amount <- ifelse(!is.na(data$wri.bonus.portion.confirm) & data$wri.bonus.portion.confirm==1 &
data$wri.bonus.portion==2,10,data$wri.bonus.amount)
> data$wri.bonus.amount <- ifelse(!is.na(data$wri.bonus.portion.confirm) & data$wri.bonus.portion.confirm==1 &
data$wri.bonus.portion==3,20,data$wri.bonus.amount)
> data$wri.bonus.amount <- ifelse(!is.na(data$wri.bonus.portion.confirm) & data$wri.bonus.portion.confirm==1 &
data$wri.bonus.portion==4,30,data$wri.bonus.amount)
> data$wri.bonus.amount <- ifelse(!is.na(data$wri.bonus.portion.confirm) & data$wri.bonus.portion.confirm==1 &
data$wri.bonus.portion==5,40,data$wri.bonus.amount)
>
> data$wri.bonus.any <- ifelse(data$wri.bonus.amount>0,1,0)
>
> data$govt.spending.support <- ifelse(data$govt.spending.support==2,0,data$govt.spending.support) #This transforms binary variable to
expected values, 1-approval; 0-disapprove
> data$govt.encourage <- ifelse(data$govt.encourage==2,0,1) #This transforms binary variable to expected values, 1-yes; 0-no
> data$govt.discourage <- ifelse(data$govt.discourage==2,0,1) #This transforms binary variable to expected values, 1-yes; 0-no
>
> data$govt.message <- NA #Combining govt.encourage and govt.discourage into one variable
> data$govt.message <- ifelse(data$govt.encourage==1 & !is.na(data$statement),"encourage",data$govt.message)
> data$govt.message <- ifelse(data$govt.discourage==1 & !is.na(data$govt.discourage)& !
is.na(data$statement),"discourage",data$govt.message)
> data$govt.message <- ifelse((data$govt.encourage==0 & !is.na(data$govt.encourage)) | (data$govt.discourage==0 & !
is.na(data$govt.discourage)) | (data$statement.nonmessage==1 & !is.na(data$statement.nonmessage)),"none",data$govt.message)
> data$govt.message <- as.factor(data$govt.message)
> data$govt.message <- relevel(data$govt.message,ref="none")
>
> data$representative[is.na(data$representative) & !is.na(data$govt.message)] <- 0
> data$rep.message <- ifelse(data$representative==1,as.character(data$govt.message),"none")
> data$rep.message <- as.factor(data$rep.message)
> data$rep.message <- relevel(data$rep.message,ref="none")
>
> data$govt.message.repclicked <- ifelse(data$repclicked==1 & !is.na(data$repclicked), as.character(data$govt.message), "none")
>
> data$govt.encourage.rep.final <- ifelse(data$govt.message.repclicked=="encourage",1,0)
> data$govt.discourage.rep.final <- ifelse(data$govt.message.repclicked=="discourage",1,0)
>
> ##Covariate recoding/generation
> data$bin.cc.serious.US <- ifelse(data$cc.serious.US==1 | data$cc.serious.US==2,1,0)
> data$bin.cc.serious.foreign <- ifelse(data$cc.serious.foreign==1 | data$cc.serious.foreign==2,1,0)
> data$bin.cc.notserious.US <- ifelse(data$cc.serious.US==3 | data$cc.serious.US==4,1,0)
> data$bin.cc.notserious.foreign <- ifelse(data$cc.serious.foreign==3 | data$cc.serious.foreign==4,1,0)
>
```

```

> data$cc.not.willing <- ifelse(data$cc.serious.foreign==4 & data$cc.serious.US==4,1,0)
>
> data$US.favorable <- ifelse(data$US.favorability==1 | data$US.favorability==2,1,0)
> data$india.favorable <- ifelse(data$india.favorability==1 | data$india.favorability==2,1,0)
> data$china.favorable <- ifelse(data$china.favorability==1 | data$china.favorability==2,1,0)
> data$US.unfavorable <- ifelse(data$US.favorability==3 | data$US.favorability==4,1,0)
> data$india.unfavorable <- ifelse(data$india.favorability==3 | data$india.favorability==4,1,0)
> data$china.unfavorable <- ifelse(data$china.favorability==3 | data$china.favorability==4,1,0)
>
> data$recall.ce[data$recall.ce==1]<-NA
> data$recall.ce[data$recall.ce==2]<-"somewhat"
> data$recall.ce[data$recall.ce==4]<-"not sure"
> data$recall.ce[data$recall.ce==5]<-"most"
> data$recall.ce[data$recall.ce==6]<-"least"
>
> data$bin.us.active <- ifelse(data$us.active==1,1,0)
>
> data$received.bonus <- ifelse(!is.na(data$wri.bonus),1,0)
>
> ##Data subsets
> data.us <- subset(data,country=="US")
> data.india <- subset(data,country=="India")
> data.china <- subset(data,country=="China")
> data.no.repub <- subset(data,party!=1)
> data.no.colgrad <- subset(data,education<5)
> data.colgrad <- subset(data,education>=5)
>
> data.us.ce0 <- subset(data,country=="US" & effect1==0)
> data.india.ce0 <- subset(data,country=="India" & effect1==0)
> data.china.ce0 <- subset(data,country=="China" & effect1==0)
> data.us.ce1 <- subset(data,country=="US" & effect1==1)
> data.india.ce1 <- subset(data,country=="India" & effect1==1)
> data.china.ce1 <- subset(data,country=="China" & effect1==1)
>
> data.click <- data[-(1:224),] #Discarding observations with unknown click tracking
> data.click.no.repub <- subset(data.click, party!=1) #Excluding Republicans for subgroup analysis
> data.click.no.colgrad <- subset(data.click, education<5)
> data.click.colgrad <- subset(data.click, education>=5)
> data.click.willing <- subset(data.click, cc.not.willing==0) #To match our sampling strategy of "hypothetically willing"
>
> data.willing <- subset(data,cc.not.willing==0) #To match our sampling strategy of "hypothetically willing"
> data.click.willing.ce0 <- subset(data.click.willing, effect1==0)
> data.willing.us <- subset(data,cc.not.willing==0 & country=="US")
> data.willing.india <- subset(data,cc.not.willing==0 & country=="India")
> data.willing.china <- subset(data,cc.not.willing==0 & country=="China")
>
> data.willing.us.ce0 <- subset(data.willing,country=="US" & effect1==0)
> data.willing.india.ce0 <- subset(data.willing,country=="India" & effect1==0)
> data.willing.china.ce0 <- subset(data.willing,country=="China" & effect1==0)
> data.willing.us.ce1 <- subset(data.willing,country=="US" & effect1==1)
> data.willing.india.ce1 <- subset(data.willing,country=="India" & effect1==1)
> data.willing.china.ce1 <- subset(data.willing,country=="China" & effect1==1)
>
> data.willing.no.colgrad <- subset(data.willing, education<5)
>
> #####
> ##Setting up data from Experiment 2
> #####
>
> data2 <- read.csv("~/Google Drive/Climate Transfers project/MTurk_Experiment2_Export_coded.csv", stringsAsFactors=FALSE)
> data2 <- data2[-1,]
>
> #Treatments
> data2$pub <- ifelse(data2$control1==1 | data2$control2==1,0,1)
> data2$ce <- ifelse(data2$all1==1 | data2$pubcost1==1 | data2$all2==1 | data2$pubcost2==1,1,0)
> data2$priv <- ifelse(data2$all1==1 | data2$pubpriv1==1 | data2$all2==1 | data2$pubpriv2==1,1,0)
> data2$donate.first <- ifelse(data2$control1==1 | data2$pub1==1 | data2$pubcost1==1 | data2$all1==1 | data2$pubpriv1==1,1,0)
>
> #Outcomes
> data2$donate.us.amount <- as.numeric(data2$donate_1)
> data2$donate.foreign.amount <- as.numeric(data2$donate_2)
> data2$donate.diff <- data2$donate.us.amount - data2$donate.foreign.amount
> data2$keep <- as.numeric(data2$donate_3)
>
> data2$donate.multi <- NA
> data2$donate.multi <- factor(data2$donate.multi, levels=c("both","us.only","foreign.only","neither"))
> data2$donate.multi[(data2$donate.us.amount>0 & data2$donate.foreign.amount>0)] <- "both"
> data2$donate.multi[data2$donate.us.amount>0 & data2$donate.foreign.amount==0] <- "us.only"
> data2$donate.multi[data2$donate.us.amount==0 & data2$donate.foreign.amount>0] <- "foreign.only"
> data2$donate.multi[data2$donate.us.amount==0 & data2$donate.foreign.amount==0] <- "neither"
> table(data2$donate.multi, useNA = "always")

```

both	us.only	foreign.only	neither	<NA>
1516	222	185	924	17

```

>
> data2$donate.any <- ifelse(data2$keep==20, 0, 1)
> data2$donate.total <- data2$donate.us.amount + data2$donate.foreign.amount
> data2$donate.prop.us <- data2$donate.us.amount / data2$donate.total
>
> data2$fundus <- as.numeric(data2$fundus)
> data2$fundus <- ifelse(data2$fundus==2,0,1)
> data2$fundfor <- as.numeric(data2$fundfor)
> data2$fundfor <- ifelse(data2$fundfor==2,0,1)
>
> #Written message & click
> data2$govt.us.encourage.rep.final <- ifelse(data2$fundus==1 & nchar(data2$text, allowNA = FALSE)>0 & is.na(data2$statement.nonmessage)
& data2$repclick==1, 1, 0)
> data2$govt.us.discourage.rep.final <- ifelse(data2$fundus==0 & nchar(data2$text, allowNA = FALSE)>0 & is.na(data2$statement.nonmessage)
& data2$repclick==1, 1, 0)
> data2$govt.foreign.encourage.rep.final <- ifelse(data2$fundfor==1 & nchar(data2$text, allowNA = FALSE)>0 &
is.na(data2$statement.nonmessage) & data2$repclick==1, 1, 0)
> data2$govt.foreign.discourage.rep.final <- ifelse(data2$fundfor==0 & nchar(data2$text, allowNA = FALSE)>0 &
is.na(data2$statement.nonmessage) & data2$repclick==1, 1, 0)
>
> #Covariates
> for (i in 22:24){
+   data2[,i] <- as.numeric(data2[,i])}
>
> data2$local.benefits.score <- rowMeans(data2[,22:24],na.rm=T) #This measures the extent to which subjects report local benefits to be
very important
>
> #Effective Data
> data2 <- subset(data2,Q70==2 | Q70=="") #Removing subjects who do not consent to participate
> data2.no.repub <- subset(data2, Q142!=1) #excluding subjects who identify as Republicans
> data2.no.colgrad <- subset(data2, Q115<5) #excluding subjects who graduated from college
>
> #Data Subsets
> data2.privT <- subset(data2,pub==1 & priv==1)
> data2.N0privT <- subset(data2,pub==1 & priv==0)
>
> data2.willing <- subset(data2, Q202!=4 & Q203!=4)
> data2.w.pure.control <- subset(data2.willing, pub==0)
> data2.w.noT <- subset(data2.willing, ce==0 & priv==0)
> data2.w.pub <- subset(data2.willing, pub==1)
> data2.w.pb.ceiling <- subset(data2.willing, local.benefits.score<=3)
> data2.w.pb.prior <- subset(data2.willing, Q132_1!=2 & Q132_2!=4)
> data2.w.no.colgrad <- subset(data2.willing, Q115<5)
>
> data2.w.any <- subset(data2.w.pub, donate.us.amount>0 | donate.foreign.amount>0)
>
>
> #####
> #####
> ###Main manuscript
> #####
> #####
>
> #####
> ###Figure 1: Location
> #####
>
> ### (A) Exp 1: Private Donation
> #Note: this runs the analysis for both the location and cost-effectiveness arms (Figure 2)
>
> #Analysis
> no.vector.us.ce0<-data.willing.us.ce0$wri.fullbonus.final[data.willing.us.ce0$wri.stated==0 & data.willing.us.ce0$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce0<-data.willing.china.ce0$wri.fullbonus.final[data.willing.china.ce0$wri.stated==0 &
data.willing.china.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce0<-data.willing.india.ce0$wri.fullbonus.final[data.willing.india.ce0$wri.stated==0 &
data.willing.india.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.us.ce1<-data.willing.us.ce1$wri.fullbonus.final[data.willing.us.ce1$wri.stated==0 & data.willing.us.ce1$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce1<-data.willing.china.ce1$wri.fullbonus.final[data.willing.china.ce1$wri.stated==0 &
data.willing.china.ce1$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce1<-data.willing.india.ce1$wri.fullbonus.final[data.willing.india.ce1$wri.stated==0 &
data.willing.india.ce1$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
>
> prob.switch.us.ce0 <- sum(no.vector.us.ce0)/length(no.vector.us.ce0) #This is the probability of donating after stating "no"
> prob.switch.china.ce0 <- sum(no.vector.china.ce0)/length(no.vector.china.ce0) #This is the probability of donating after stating "no"
> prob.switch.india.ce0 <- sum(no.vector.india.ce0)/length(no.vector.india.ce0) #This is the probability of donating after stating "no"
> prob.switch.us.ce1 <- sum(no.vector.us.ce1)/length(no.vector.us.ce1) #This is the probability of donating after stating "no"
> prob.switch.china.ce1 <- sum(no.vector.china.ce1)/length(no.vector.china.ce1) #This is the probability of donating after stating "no"
> prob.switch.india.ce1 <- sum(no.vector.india.ce1)/length(no.vector.india.ce1) #This is the probability of donating after stating "no"
>
> #Setting up for the simulation
> imp <- data.willing$wri.fullbonus.final
>
> treat.country <- unique(data.willing$country)

```

```

> treat.ce <- c(0,1)
> sims <- 10000
>
> us.ob.ce0 <- rep(NA,sims)
> china.ob.ce0 <- rep(NA,sims)
> india.ob.ce0 <- rep(NA,sims)
> us.ob.ce1 <- rep(NA,sims)
> china.ob.ce1 <- rep(NA,sims)
> india.ob.ce1 <- rep(NA,sims)
>
> ate.china <- rep(NA,sims)
> ate.india <- rep(NA,sims)
>
> ate.china.ce1 <- rep(NA,sims)
> ate.india.ce1 <- rep(NA,sims)
>
> ate.us.ce <- rep(NA,sims)
> ate.china.ce <- rep(NA,sims)
> ate.india.ce <- rep(NA,sims)
>
> #The sampling distribution for the ATE under the sharp null is formed over repeated imputations
> #This imputes a full data.willing dataset, sampling from the observed values for donating after stating "no"
> set.seed(201)
> for (j in 1:sims){
+
+   for (i in 1:nrow(data.willing)){
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="US" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.us.ce0)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="China" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.china.ce0)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="India" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.india.ce0)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="US" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.us.ce1)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="China" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.china.ce1)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="India" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.india.ce1)}
+   }
+
+   treatment.country <- sample(treat.country, size=nrow(data.willing), replace=TRUE)
+   treatment.ce <- sample(treat.ce, size=nrow(data.willing), replace=TRUE)
+
+   us.ob.ce0[j] <- mean(imp[data.willing$country=="US" & data.willing$effect1==0])
+   china.ob.ce0[j] <- mean(imp[data.willing$country=="China" & data.willing$effect1==0])
+   india.ob.ce0[j] <- mean(imp[data.willing$country=="India" & data.willing$effect1==0])
+   us.ob.ce1[j] <- mean(imp[data.willing$country=="US" & data.willing$effect1==1])
+   china.ob.ce1[j] <- mean(imp[data.willing$country=="China" & data.willing$effect1==1])
+   india.ob.ce1[j] <- mean(imp[data.willing$country=="India" & data.willing$effect1==1])
+
+   ate.china[j] <- mean(imp[treatment.country=="China" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+   ate.india[j] <- mean(imp[treatment.country=="India" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+
+   ate.china.ce1[j] <- mean(imp[treatment.country=="China" & data.willing$effect1==1]) - mean(imp[treatment.country=="US" &
data.willing$effect1==1])
+   ate.india.ce1[j] <- mean(imp[treatment.country=="India" & data.willing$effect1==1]) - mean(imp[treatment.country=="US" &
data.willing$effect1==1])
+
+   ate.us.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="US"]) - mean(imp[treatment.ce==0 & data.willing$country=="US"])
+   ate.china.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="China"]) - mean(imp[treatment.ce==0 &
data.willing$country=="China"])
+   ate.india.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="India"]) - mean(imp[treatment.ce==0 &
data.willing$country=="India"])
+ }
>
> #Means after imputation:
> mean(us.ob.ce0) #0.2174562
[1] 0.2174562
> mean(india.ob.ce0) #0.2397313
[1] 0.2397313
> mean(china.ob.ce0) #0.1281301
[1] 0.1281301
> #Note: these are the values for Figure 1, Panel A
>
> mean(us.ob.ce1) #0.2411839
[1] 0.2411839
> mean(india.ob.ce1) #0.2354218
[1] 0.2354218
> mean(china.ob.ce1) #0.2049109
[1] 0.2049109
>
> #SEs of imputation:
> sd(us.ob.ce0) #0.01770294

```

```

[1] 0.01770294
> sd(india.ob.ce0) #0.01956023
[1] 0.01956023
> sd(china.ob.ce0) #0.01453143
[1] 0.01453143
> sd(us.ob.ce1) #0.02022568
[1] 0.02022568
> sd(india.ob.ce1) #0.01877704
[1] 0.01877704
> sd(china.ob.ce1) #0.01833503
[1] 0.01833503
>
> #Displaying the sampling distributions after imputation
> hist(ate.china)
> hist(ate.india)
>
> hist(ate.china.ce1)
> hist(ate.india.ce1)
>
> hist(ate.us.ce)
> hist(ate.china.ce)
> hist(ate.india.ce)
>
> ###Evaluating and then averaging the p-value of different imputations
> china.p <- rep(NA,sims)
> india.p <- rep(NA,sims)
>
> china.ce1.p <- rep(NA,sims)
> india.ce1.p <- rep(NA,sims)
>
> us.ce.p <- rep(NA,sims)
> china.ce.p <- rep(NA,sims)
> india.ce.p <- rep(NA,sims)
>
> for (k in 1:sims){
+   china.test <- (ate.china < (china.ob.ce0[k] - us.ob.ce0[k]))
+   india.test <- (ate.india < (india.ob.ce0[k] - us.ob.ce0[k]))
+
+   china.ce1.test <- (ate.china.ce1 < (china.ob.ce1[k] - us.ob.ce1[k]))
+   india.ce1.test <- (ate.india.ce1 < (india.ob.ce1[k] - us.ob.ce1[k]))
+
+   us.ce.test <- (ate.us.ce < (us.ob.ce1[k] - us.ob.ce0[k])) #One-tailed test about negative effect of poor CE information
+   china.ce.test <- (ate.china.ce > (china.ob.ce1[k] - china.ob.ce0[k])) #One-tailed test about positive effect of good CE information
+   india.ce.test <- (abs(ate.india.ce) > abs(india.ob.ce1[k] - india.ob.ce0[k])) #Two-tailed test about moderate CE information
+
+   china.p[k] <- sum(china.test)/length(china.test)
+   india.p[k] <- sum(india.test)/length(india.test)
+
+   china.ce1.p[k] <- sum(china.ce1.test)/length(china.ce1.test)
+   india.ce1.p[k] <- sum(india.ce1.test)/length(india.ce1.test)
+
+   us.ce.p[k] <- sum(us.ce.test)/length(us.ce.test)
+   china.ce.p[k] <- sum(china.ce.test)/length(china.ce.test)
+   india.ce.p[k] <- sum(india.ce.test)/length(india.ce.test)
+ }
>
> mean(china.p) #0.02991913
[1] 0.02991913
> mean(india.p) #0.6853572
[1] 0.6853572
>
> mean(china.ce1.p) #0.2372263
[1] 0.2372263
> mean(india.ce1.p) #0.457938
[1] 0.457938
>
> mean(us.ce.p) #0.6769077
[1] 0.6769077
> mean(china.ce.p) #0.04402671
[1] 0.04402671
> mean(india.ce.p) #0.6353137
[1] 0.6353137
>
> set.seed(201)
> se <- c(sd(rbinom(size=nrow(data.willing.us.ce0), n=10000, prob=0.2174562)/nrow(data.willing.us.ce0)),
+        sd(rbinom(size=nrow(data.willing.india.ce0), n=10000, prob=0.2397313)/nrow(data.willing.india.ce0)),
+        sd(rbinom(size=nrow(data.willing.china.ce0), n=10000, prob=0.1281301)/nrow(data.willing.china.ce0)),
+        sd(rbinom(size=nrow(data.willing.us.ce1), n=10000, prob=0.2411839)/nrow(data.willing.us.ce1)),
+        sd(rbinom(size=nrow(data.willing.india.ce1), n=10000, prob=0.2354218)/nrow(data.willing.india.ce1)),
+        sd(rbinom(size=nrow(data.willing.china.ce1), n=10000, prob=0.2049109)/nrow(data.willing.china.ce1)))
> #Note: the first three elements of "se" are the SEs for Figure 1, Panel A
>
> se <- c(0.04877672,0.05132853,0.04450108,0.03126550,0.02910411,0.02944495) #Based exactly on above
>

```

```

> #Plotting
> country <- rev(c("US", "India", "China"))
> prop.donate <- rev(c(0.2174562, 0.2397313, 0.1281301)) #From proportions calculated above
> se <- rev(c(0.04877672, 0.05132853, 0.04450108)) #From proportions calculated above
> prop.dta <- data.frame(prop.donate, country, se)
> se.bars <- aes(ymax = prop.donate + se, ymin = prop.donate - se)
>
> fig1.a <- ggplot(data=prop.dta, aes(x=country, y=prop.donate)) + theme_grey() + scale_x_discrete(limits = country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1", "khaki", "indianred2")), colour="black") + geom_errorbar(se.bars, width=0.3) +
+ ylab("Proportion Donating") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+ xlab("") +
+ coord_flip() +
+ ggtitle("(A) Exp 1: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
>
> ### (B) Exp 2: Private Donation
>
> #Analysis
> diff.ob <- mean(data2.w.pure.control$donate.foreign.amount, na.rm=T) - mean(data2.w.pure.control$donate.us.amount, na.rm=T)
> diff.ob
[1] -0.4531835
> donate.vector <- c(data2.w.pure.control$donate.us.amount, data2.w.pure.control$donate.foreign.amount)
> diff <- rep(NA, 10000)
> set.seed(202)
> for (i in 1:10000){
+ sample <- sample(1:1068, 534)
+ diff[i] <- mean(donate.vector[sample], na.rm=T) - mean(donate.vector[-sample], na.rm=T)
+ }
> location.p <- sum((diff < diff.ob))/10000 #0.018
>
> #Plotting
> dta2 <- melt(data2.w.pure.control, measure.vars = c('donate.foreign.amount', 'donate.us.amount')) #Make the object as we want it,
selecting final two columns
> dta2 <- dta2[, (ncol(dta2)-1):ncol(dta2)]
> names(dta2) <- c("Country", "Amount")
> dta2$Country <- ifelse(dta2$Country=="donate.foreign.amount", "Foreign", "US")
> mean.info <- dplyr(dta2, "Country", summarise, donate.mean=mean(Amount))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+ foreign.store[i] <- mean(sample(dta2$Amount[1:534], size=534, replace=T))
+ US.store[i] <- mean(sample(dta2$Amount[535:1068], size=534, replace=T))
+ }
> mean.info$se[1] <- sd(foreign.store)
> mean.info$se[2] <- sd(US.store)
> se.bars2 <- aes(ymax = mean.info$donate.mean + mean.info$se, ymin = mean.info$donate.mean - mean.info$se)
>
> fig1.b <- ggplot(mean.info, aes(x=Country, y=donate.mean)) + theme_grey() + scale_x_discrete(limits = mean.info$Country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars2, width=0.3) +
+ ylab("Amount Donated ($)") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+ xlab("") +
+ coord_flip() +
+ ggtitle("(B) Exp 2: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
>
> ### (C) Exp 1: Public Spending
>
> #Analysis
> data.china.test <- subset(data.click.willing, country!="India" & effect1==0)
> data.china.test$treat.china <- ifelse(data.china.test$country=="China", 1, 0)
> perms <- genperms(data.china.test$treat.china) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 1.193695896881e+94 to perform exact estimation.
> ate <- estate(data.china.test$govt.encourage.rep.final, data.china.test$treat.china, HT=TRUE) #point estimate of the ATE (simple in
this case)
Warning message:
In estate(data.china.test$govt.encourage.rep.final, data.china.test$treat.china, :
Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.china.test$govt.encourage.rep.final, data.china.test$treat.china, ate=0) # generate potential outcomes under sharp
null
> distout <- gendist(Ys, perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.0084

$two.tailed.p.value.abs
[1] 0.0092

$greater.p.value
[1] 0.9958

```

```

$lesser.p.value
[1] 0.0042

$quantile
      2.5%      97.5%
-0.06961353  0.06919878

$sd
[1] 0.03461506

$exp.val
[1] -9.558498e-07

>
> data.india.test <- subset(data.click.willing, country!="China" & effect1==0)
> data.india.test$treat.india <- ifelse(data.india.test$country=="India",1,0)
> perms <- genperms(data.india.test$treat.india) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 2.70471415145649e+89 to perform exact estimation.
> ate <- estate(data.india.test$govt.encourage.rep.final, data.india.test$treat.india) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.india.test$govt.encourage.rep.final, data.india.test$treat.india) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.india.test$govt.encourage.rep.final, data.india.test$treat.india, ate=0) # generate potential outcomes under sharp null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.2056

$two.tailed.p.value.abs
[1] 0.2171

$greater.p.value
[1] 0.8972

$lesser.p.value
[1] 0.1028

$quantile
      2.5%      97.5%
-0.06761313  0.07848422

$sd
[1] 0.03784205

$exp.val
[1] -1.379515e-06

>
> #Plotting
> tab <- as.data.frame(matrix(table(data.click.willing.ce0$country,data.click.willing.ce0$govt.encourage.rep.final))
> names(tab) <- c("X0","X1")
> tab$n <- tab$X1 + tab$X0
> tab$prop.govt.encourage <- tab$X1/(tab$X0+tab$X1)
>
> us.store <- rep(NA, 10000)
> india.store <- rep(NA, 10000)
> china.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   us.store[i] <- mean(rbinom(n=tab$n[1], size=1, prob=tab$prop.govt.encourage[1]))
+   india.store[i] <- mean(rbinom(n=tab$n[2], size=1, prob=tab$prop.govt.encourage[2]))
+   china.store[i] <- mean(rbinom(n=tab$n[3], size=1, prob=tab$prop.govt.encourage[3]))
+ }
> tab$se[1] <- sd(us.store)
> tab$se[2] <- sd(india.store)
> tab$se[3] <- sd(china.store)
> tab$country <- row.names(tab)
> tab <- tab[order(tab$country),]
>
> se.bars.ps1 <- aes(ymax = tab$prop.govt.encourage + tab$se, ymin = tab$prop.govt.encourage - tab$se)
> fig1.c<-ggplot(tab, aes(x=country, y=prop.govt.encourage)) + theme_grey() + scale_x_discrete(limits = tab$country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1","khaki","indianred2")), colour="black") + geom_errorbar(se.bars.ps1, width=0.3) +
+   ylab("Proportion Writing to Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12,
colour="black")) + xlab("") +
+   coord_flip() +
+   ggtitle("(C) Exp 1: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
>
> ### (D) Exp 2: Public Spending

```

```

>
> #Analysis
> diff.ob <- mean(data2.w.pure.control$fundfor, na.rm=T) - mean(data2.w.pure.control$fundus, na.rm=T)
> diff.ob
[1] -0.3009071
> support.vector <- c(data2.w.pure.control$fundus, data2.w.pure.control$fundfor)
> diff <- rep(NA, 10000)
> set.seed(202)
> for (i in 1:10000){
+   sample <- sample(1:1068, 534)
+   diff[i] <- mean(support.vector[sample], na.rm=T) - mean(support.vector[-sample], na.rm=T)
+ }
> location.p <- sum((diff < diff.ob))/10000
>
> #Plotting
> dta4 <- melt(data2.w.pure.control, measure.vars = c("fundus", "fundfor")) #Make the object as we want it, selecting final two columns
> dta4 <- dta4[, (ncol(dta4)-1):ncol(dta4)]
> names(dta4) <- c("Country", "Write")
>
> dta4$Country <- ifelse(dta4$Country=="fundfor", "Foreign", "US")
> mean.info4 <- ddply(dta4, "Country", summarise, write.mean=mean(Write, na.rm=T))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta4$Write[1:534], size=534, replace=T), na.rm=T)
+   US.store[i] <- mean(sample(dta4$Write[535:1068], size=534, replace=T), na.rm=T)
+ }
> mean.info4$se[1] <- sd(foreign.store)
> mean.info4$se[2] <- sd(US.store)
> se.bars4 <- aes(ymax = mean.info4$write.mean + mean.info4$se, ymin = mean.info4$write.mean - mean.info4$se)
>
> fig1.d <- ggplot(mean.info4, aes(x=Country, y=write.mean)) + theme_grey() + scale_x_discrete(limits = mean.info4$Country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars4, width=0.3) +
+   ylab("Proportion Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+   xlab("") +
+   coord_flip() +
+   ggtitle("(D) Exp 2: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> F1 <- plot_grid(fig1.a, fig1.b, fig1.c, fig1.d)
>
> #####
> ##Figure 2: Cost-Effectiveness
> #####
>
> par(mfrow=c(2,2), mar=c(2.1, 4.1, 2.1, 1.1), mgp=c(2.5, 1, 0)) #This will plot the four panels together, skip if examining individually
>
> ## (A) Exp 1: Private Donation
> #Note: this runs the analysis for both the location and cost-effectiveness arms (Figure 1)
> #Note: this is an exact copy of the analysis in Figure 1, Panel A pasted here for convenience
>
> #Analysis
> no.vector.us.ce0 <- data.willing.us.ce0$wri.fullbonus.final[data.willing.us.ce0$wri.stated==0 & data.willing.us.ce0$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce0 <- data.willing.china.ce0$wri.fullbonus.final[data.willing.china.ce0$wri.stated==0 &
data.willing.china.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce0 <- data.willing.india.ce0$wri.fullbonus.final[data.willing.india.ce0$wri.stated==0 &
data.willing.india.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.us.ce1 <- data.willing.us.ce1$wri.fullbonus.final[data.willing.us.ce1$wri.stated==0 & data.willing.us.ce1$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce1 <- data.willing.china.ce1$wri.fullbonus.final[data.willing.china.ce1$wri.stated==0 &
data.willing.china.ce1$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce1 <- data.willing.india.ce1$wri.fullbonus.final[data.willing.india.ce1$wri.stated==0 &
data.willing.india.ce1$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
>
> prob.switch.us.ce0 <- sum(no.vector.us.ce0)/length(no.vector.us.ce0) #This is the probability of donating after stating "no"
> prob.switch.china.ce0 <- sum(no.vector.china.ce0)/length(no.vector.china.ce0) #This is the probability of donating after stating "no"
> prob.switch.india.ce0 <- sum(no.vector.india.ce0)/length(no.vector.india.ce0) #This is the probability of donating after stating "no"
> prob.switch.us.ce1 <- sum(no.vector.us.ce1)/length(no.vector.us.ce1) #This is the probability of donating after stating "no"
> prob.switch.china.ce1 <- sum(no.vector.china.ce1)/length(no.vector.china.ce1) #This is the probability of donating after stating "no"
> prob.switch.india.ce1 <- sum(no.vector.india.ce1)/length(no.vector.india.ce1) #This is the probability of donating after stating "no"
>
> #Setting up for the simulation
> imp <- data.willing$wri.fullbonus.final
>
> treat.country <- unique(data.willing$country)
> treat.ce <- c(0, 1)
> sims <- 10000
>
> us.ob.ce0 <- rep(NA, sims)
> china.ob.ce0 <- rep(NA, sims)
> india.ob.ce0 <- rep(NA, sims)
> us.ob.ce1 <- rep(NA, sims)

```

```

> china.ob.ce1 <- rep(NA,sims)
> india.ob.ce1 <- rep(NA,sims)
>
> ate.china <- rep(NA,sims)
> ate.india <- rep(NA,sims)
>
> ate.china.ce1 <- rep(NA,sims)
> ate.india.ce1 <- rep(NA,sims)
>
> ate.us.ce <- rep(NA,sims)
> ate.china.ce <- rep(NA,sims)
> ate.india.ce <- rep(NA,sims)
>
> #The sampling distribution for the ATE under the sharp null is formed over repeated imputations
> #This imputes a full data.willing dataset, sampling from the observed values for donating after stating "no"
> set.seed(201)
> for (j in 1:sims){
+
+   for (i in 1:nrow(data.willing)){
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="US" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.us.ce0)
+     }
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="China" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.china.ce0)
+     }
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="India" & data.willing$effect1[i]==0){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.india.ce0)
+     }
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="US" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.us.ce1)
+     }
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="China" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.china.ce1)
+     }
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="India" & data.willing$effect1[i]==1){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.india.ce1)
+     }
+   }
+
+   treatment.country <- sample(treat.country, size=nrow(data.willing), replace=TRUE)
+   treatment.ce <- sample(treat.ce, size=nrow(data.willing), replace=TRUE)
+
+   us.ob.ce0[j] <- mean(imp[data.willing$country=="US" & data.willing$effect1==0])
+   china.ob.ce0[j] <- mean(imp[data.willing$country=="China" & data.willing$effect1==0])
+   india.ob.ce0[j] <- mean(imp[data.willing$country=="India" & data.willing$effect1==0])
+   us.ob.ce1[j] <- mean(imp[data.willing$country=="US" & data.willing$effect1==1])
+   china.ob.ce1[j] <- mean(imp[data.willing$country=="China" & data.willing$effect1==1])
+   india.ob.ce1[j] <- mean(imp[data.willing$country=="India" & data.willing$effect1==1])
+
+   ate.china[j] <- mean(imp[treatment.country=="China" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+   ate.india[j] <- mean(imp[treatment.country=="India" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+
+   ate.china.ce1[j] <- mean(imp[treatment.country=="China" & data.willing$effect1==1]) - mean(imp[treatment.country=="US" &
data.willing$effect1==1])
+   ate.india.ce1[j] <- mean(imp[treatment.country=="India" & data.willing$effect1==1]) - mean(imp[treatment.country=="US" &
data.willing$effect1==1])
+
+   ate.us.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="US"]) - mean(imp[treatment.ce==0 & data.willing$country=="US"])
+   ate.china.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="China"]) - mean(imp[treatment.ce==0 &
data.willing$country=="China"])
+   ate.india.ce[j] <- mean(imp[treatment.ce==1 & data.willing$country=="India"]) - mean(imp[treatment.ce==0 &
data.willing$country=="India"])
+ }
>
> #Means after imputation:
> mean(us.ob.ce0) #0.2174562
[1] 0.2174562
> mean(india.ob.ce0) #0.2397313
[1] 0.2397313
> mean(china.ob.ce0) #0.1281301
[1] 0.1281301
> mean(us.ob.ce1) #0.2411839
[1] 0.2411839
> mean(india.ob.ce1) #0.2354218
[1] 0.2354218
> mean(china.ob.ce1) #0.2049109
[1] 0.2049109
> #Note: these are the values for Figure 2, Panel A
>
> mean(us.ob.ce1) #0.2411839
[1] 0.2411839
> mean(india.ob.ce1) #0.2354218
[1] 0.2354218
> mean(china.ob.ce1) #0.2049109
[1] 0.2049109
>
> #SEs of imputation:
> sd(us.ob.ce0) #0.01770294
[1] 0.01770294

```

```

> sd(india.ob.ce0) #0.01956023
[1] 0.01956023
> sd(china.ob.ce0) #0.01453143
[1] 0.01453143
> sd(us.ob.ce1) #0.02022568
[1] 0.02022568
> sd(india.ob.ce1) #0.01877704
[1] 0.01877704
> sd(china.ob.ce1) #0.01833503
[1] 0.01833503
>
> #Displaying the sampling distributions after imputation
> hist(ate.china)
> hist(ate.india)
>
> hist(ate.china.ce1)
> hist(ate.india.ce1)
>
> hist(ate.us.ce)
> hist(ate.china.ce)
> hist(ate.india.ce)
>
> ###Evaluating and then averaging the p-value of different imputations
> china.p <- rep(NA,sims)
> india.p <- rep(NA,sims)
>
> china.ce1.p <- rep(NA,sims)
> india.ce1.p <- rep(NA,sims)
>
> us.ce.p <- rep(NA,sims)
> china.ce.p <- rep(NA,sims)
> india.ce.p <- rep(NA,sims)
>
> for (k in 1:sims){
+   china.test <- (ate.china < (china.ob.ce0[k] - us.ob.ce0[k]))
+   india.test <- (ate.india < (india.ob.ce0[k] - us.ob.ce0[k]))
+
+   china.ce1.test <- (ate.china.ce1 < (china.ob.ce1[k] - us.ob.ce1[k]))
+   india.ce1.test <- (ate.india.ce1 < (india.ob.ce1[k] - us.ob.ce1[k]))
+
+   us.ce.test <- (ate.us.ce < (us.ob.ce1[k] - us.ob.ce0[k])) #One-tailed test about negative effect of poor CE information
+   china.ce.test <- (ate.china.ce > (china.ob.ce1[k] - china.ob.ce0[k])) #One-tailed test about positive effect of good CE information
+   india.ce.test <- (abs(ate.india.ce) > abs(india.ob.ce1[k] - india.ob.ce0[k])) #Two-tailed test about moderate CE information
+
+   china.p[k] <- sum(china.test)/length(china.test)
+   india.p[k] <- sum(india.test)/length(india.test)
+
+   china.ce1.p[k] <- sum(china.ce1.test)/length(china.ce1.test)
+   india.ce1.p[k] <- sum(india.ce1.test)/length(india.ce1.test)
+
+   us.ce.p[k] <- sum(us.ce.test)/length(us.ce.test)
+   china.ce.p[k] <- sum(china.ce.test)/length(china.ce.test)
+   india.ce.p[k] <- sum(india.ce.test)/length(india.ce.test)
+ }
>
> mean(china.p) #0.02991913
[1] 0.02991913
> mean(india.p) #0.6853572
[1] 0.6853572
>
> mean(china.ce1.p) #0.2372263
[1] 0.2372263
> mean(india.ce1.p) #0.457938
[1] 0.457938
>
> mean(us.ce.p) #0.6769077
[1] 0.6769077
> mean(china.ce.p) #0.04402671
[1] 0.04402671
> mean(india.ce.p) #0.6353137
[1] 0.6353137
>
> #Plotting
> set.seed(201)
> se.e1 <- c(sd(rbinom(size=nrow(data.willing.us.ce0), n=10000, prob=0.2174562)/nrow(data.willing.us.ce0)),
+ sd(rbinom(size=nrow(data.willing.china.ce0), n=10000, prob=0.1281301)/nrow(data.willing.china.ce0)),
+ sd(rbinom(size=nrow(data.willing.india.ce0), n=10000, prob=0.2397313)/nrow(data.willing.india.ce0)),
+ sd(rbinom(size=nrow(data.willing.us.ce1), n=10000, prob=0.2411839)/nrow(data.willing.us.ce1)),
+ sd(rbinom(size=nrow(data.willing.china.ce1), n=10000, prob=0.2049109)/nrow(data.willing.china.ce1)),
+ sd(rbinom(size=nrow(data.willing.india.ce1), n=10000, prob=0.2354218)/nrow(data.willing.india.ce1))
+)
> se.e1 <- c(0.02958062,0.02430956,0.03149871,0.03139279,0.02972925,0.02913393) #Based exactly on block immediately above
>
> ce = c(0,-0.05,0.05,1,0.95,1.05)
> prop.donate=c(0.2174562,

```

```

+         0.1281301,
+         0.2397313,
+         0.2411839,
+         0.2049109,
+         0.2354218) #From Analysis block; Ordering: US.ce0,China.ce0,India.ce0,US.ce1,China.ce1,India.ce1
+
> plot(x=ce,y=prop.donate,xaxt="n",xlim=c(-0.3,1.3),ylim=c(0.05,0.3),ylab="Proportion Donating Full Bonus",xlab="",
+      main="(A) Exp 1: Private Donation", col=c("steelblue1","indianred2","khaki","steelblue1","indianred2","khaki"), pch=19,cex=1.5,
+      cex.main=1.4)
> lines(x=c(0,1), y=c(prop.donate[1],prop.donate[4]), col="steelblue1", lwd=2)
> lines(x=c(-0.05,0.95), y=c(prop.donate[2],prop.donate[5]), col="indianred2", lwd=2)
> lines(x=c(0.05,1.05), y=c(prop.donate[3],prop.donate[6]), col="khaki", lwd=2)
> arrows(ce, prop.donate-se.e1, ce, prop.donate+se.e1, length=0.05, angle=90, code=3)
> axis(1,at=c(0,1),labels=c("Control","CE Treatment"), cex.axis=1.2)
> legend(x=0.9,y=0.11, legend=c("India","US","China"), cex=1,
+       fill=c("khaki","steelblue1","indianred2"), bty = "n")
+
>
> ### (B) Exp 2: Private Donation
+
> #Analysis
> data2.h2 <- subset(data2.willing, pub==1)
> mean(data2.h2$donate.us.amount[data2.h2$ce==1], na.rm=T) #2.90
[1] 2.898592
> mean(data2.h2$donate.us.amount[data2.h2$ce==0], na.rm=T) #3.32
[1] 3.322611
> diff.ob.us = mean(data2.h2$donate.us.amount[data2.h2$ce==1], na.rm=T) - mean(data2.h2$donate.us.amount[data2.h2$ce==0], na.rm=T)
> diff.ob.us
[1] -0.4240196
> sims <- 5000
> y1.mean.us <- rep(NA,sims)
> y0.mean.us <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h2),size=1,prob=0.5)
+   y1 <- data2.h2$donate.us.amount[treat.vector==1]
+   y0 <- data2.h2$donate.us.amount[treat.vector==0]
+   y1.mean.us[i] <- mean(y1)
+   y0.mean.us[i] <- mean(y0)
+ }
> h2.diff.us <- y1.mean.us - y0.mean.us
> hist(h2.diff.us)
> ce.us.p <- sum((diff.ob.us > h2.diff.us))/sims #p = 0.0026
+
> mean(data2.h2$donate.foreign.amount[data2.h2$ce==1], na.rm=T) #3.50
[1] 3.498592
> mean(data2.h2$donate.foreign.amount[data2.h2$ce==0], na.rm=T) #3.00
[1] 2.999054
> diff.ob.foreign = mean(data2.h2$donate.foreign.amount[data2.h2$ce==1], na.rm=T) -
mean(data2.h2$donate.foreign.amount[data2.h2$ce==0], na.rm=T)
> diff.ob.foreign #0.50
[1] 0.4995376
> sims <- 5000
> y1.mean.foreign <- rep(NA,sims)
> y0.mean.foreign <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h2),size=1,prob=0.5)
+   y1 <- data2.h2$donate.foreign.amount[treat.vector==1]
+   y0 <- data2.h2$donate.foreign.amount[treat.vector==0]
+   y1.mean.foreign[i] <- mean(y1)
+   y0.mean.foreign[i] <- mean(y0)
+ }
> h2.diff.foreign <- y1.mean.foreign - y0.mean.foreign
> hist(h2.diff.foreign)
> ce.foreign.p <- sum((diff.ob.foreign < h2.diff.foreign))/sims #p = 0.0006
+
> #Plotting
> treat.donate2=c(0,0,1,1)
> value.donate2=c(mean(data2.w.pub$donate.us.amount[data2.w.pub$ce==0], na.rm=T),
+               mean(data2.w.pub$donate.us.amount[data2.w.pub$ce==0], na.rm=T),
+               mean(data2.w.pub$donate.us.amount[data2.w.pub$ce==1], na.rm=T),
+               mean(data2.w.pub$donate.us.amount[data2.w.pub$ce==1], na.rm=T))
+ )
> n.donate2=c(length(data2.w.pub$donate.us.amount[data2.w.pub$ce==0]),
+            length(data2.w.pub$donate.us.amount[data2.w.pub$ce==0]),
+            length(data2.w.pub$donate.us.amount[data2.w.pub$ce==1]),
+            length(data2.w.pub$donate.us.amount[data2.w.pub$ce==1]))
+ )
>
> d <- data.frame(matrix(nrow=10000))[,-1] #Creating empty dataframe to fill with bootstrapped means
> set.seed(201)
> for (i in 1:10000){
+   d$y0.mean.us[i] <- mean(sample(data2.w.pub$donate.us.amount[data2.w.pub$ce==0], replace=T, size=n.donate2[1]))
+   d$y0.mean.foreign[i] <- mean(sample(data2.w.pub$donate.foreign.amount[data2.w.pub$ce==0], replace=T, size=n.donate2[2]))

```

```

+ d$y1.mean.us[i] <- mean(sample(data2.w.pub$donate.us.amount[data2.w.pub$ce==1], replace=T, size=n.donate2[3]))
+ d$y1.mean.foreign[i] <- mean(sample(data2.w.pub$donate.foreign.amount[data2.w.pub$ce==1], replace=T, size=n.donate2[4]))
+ }
>
> se.donate2=c(sd(d$y0.mean.us),sd(d$y0.mean.foreign),sd(d$y1.mean.us),sd(d$y1.mean.foreign))
>
> plot(x=treat.donate2,y=value.donate2,xaxt="n",xlim=c(-0.5,1.5),ylim=c(2.6,3.7),ylab="Amount Donated ($)",xlab="",
+ main="(B) Exp 2: Private Donation", col=c("steelblue1","black","steelblue1","black"), pch=19,cex=1.5, cex.main=1.4)
> axis(1,at=c(0,1),labels=c("Control","CE Treatment"), cex.axis=1.2)
> arrows(treat.donate2, value.donate2-se.donate2, treat.donate2, value.donate2+se.donate2, length=0.05, angle=90, code=3)
> lines(x=c(0,1), y=c(value.donate2[1], value.donate2[3]), col="steelblue1", lwd=2)
> lines(x=c(0,1), y=c(value.donate2[2], value.donate2[4]), col="black", lwd=2)
> legend("bottomleft", legend=c("US","Foreign"), cex=1,
+ fill=c("steelblue1","black"), bty = "n")
>
>
> ### (C) Exp 1: Public Spending
>
> #Analysis
> data.us.ce.test <- subset(data.click.willing, country=="US")
> perms <- genperms(data.us.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 2.44173895562917e+90 to perform exact estimation.
> ate <- estate(data.us.ce.test$govt.encourage.rep.final, data.us.ce.test$effect1) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.us.ce.test$govt.encourage.rep.final, data.us.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.us.ce.test$govt.encourage.rep.final, data.us.ce.test$effect1, ate=0) # generate potential outcomes under sharp null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.5542

$two.tailed.p.value.abs
[1] 0.6285

$greater.p.value
[1] 0.2771

$lesser.p.value
[1] 0.7229

$quantile
      2.5%      97.5%
-0.07470166  0.08294692

$sd
[1] 0.04109783

$exp.val
[1] 1.101238e-06

>
> data.china.ce.test <- subset(data.click.willing, country=="China")
> perms <- genperms(data.china.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 3.55546635683556e+92 to perform exact estimation.
> ate <- estate(data.china.ce.test$govt.encourage.rep.final, data.china.ce.test$effect1) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.china.ce.test$govt.encourage.rep.final, data.china.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.china.ce.test$govt.encourage.rep.final, data.china.ce.test$effect1, ate=0) # generate potential outcomes under sharp
null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.0626

$two.tailed.p.value.abs
[1] 0.1022

$greater.p.value
[1] 0.9687

$lesser.p.value
[1] 0.0313

$quantile
      2.5%      97.5%

```

```

-0.04946050 0.04034061

$sd
[1] 0.02358619

$exp.val
[1] -4.33477e-07

>
> data.india.ce.test <- subset(data.click.willing, country=="India")
> perms <- genperms(data.india.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 5.12878181536557e+92 to perform exact estimation.
> ate <- estate(data.india.ce.test$govt.encourage.rep.final, data.india.ce.test$effect1) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.india.ce.test$govt.encourage.rep.final, data.india.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.india.ce.test$govt.encourage.rep.final, data.india.ce.test$effect1, ate=0) # generate potential outcomes under sharp
null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.0878

$two.tailed.p.value.abs
[1] 0.0839

$greater.p.value
[1] 0.9561

$lesser.p.value
[1] 0.0439

$quantile
      2.5%      97.5%
-0.05734101 0.05817940

$sd
[1] 0.02990155

$exp.val
[1] 6.511116e-07

>
> #Plotting
> ce = c(0.05,-0.05,0,1.05,0.95,1)
>
> us.e.ce0 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="US" & data.click.willing$effect1==0]
> china.e.ce0 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="China" & data.click.willing$effect1==0]
> india.e.ce0 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="India" & data.click.willing$effect1==0]
> us.e.ce1 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="US" & data.click.willing$effect1==1]
> china.e.ce1 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="China" & data.click.willing$effect1==1]
> india.e.ce1 <- data.click.willing$govt.encourage.rep.final[data.click.willing$country=="India" & data.click.willing$effect1==1]
>
> prop.encourage=c(sum(us.e.ce0) / length(us.e.ce0),
+                  sum(china.e.ce0) / length(china.e.ce0),
+                  sum(india.e.ce0) / length(india.e.ce0),
+                  sum(us.e.ce1) / length(us.e.ce1),
+                  sum(china.e.ce1) / length(china.e.ce1),
+                  sum(india.e.ce1) / length(india.e.ce1)
+ )
>
> set.seed(201)
> se.pub <- c(sd(rbinom(size=length(us.e.ce0), n=10000, prob=mean(us.e.ce0)) / length(us.e.ce0)),
+            sd(rbinom(size=length(china.e.ce0), n=10000, prob=mean(china.e.ce0)) / length(china.e.ce0)),
+            sd(rbinom(size=length(india.e.ce0), n=10000, prob=mean(india.e.ce0)) / length(india.e.ce0)),
+            sd(rbinom(size=length(us.e.ce1), n=10000, prob=mean(us.e.ce1)) / length(us.e.ce1)),
+            sd(rbinom(size=length(china.e.ce1), n=10000, prob=mean(china.e.ce1)) / length(china.e.ce1)),
+            sd(rbinom(size=length(india.e.ce1), n=10000, prob=mean(india.e.ce1)) / length(india.e.ce1))
+ )
>
> #Note: this is actually a simplification of the bootstrapped CIs, which might not be symmetric
>
> plot(x=ce,y=prop.encourage,xaxt="n",xlim=c(-0.3,1.3),ylim=c(0.00,0.20),ylab="Proportion Writing to Encourage",xlab="",
+      main="(C) Exp 1: Public Spending", col=c("steelblue1","indianred2","khaki","steelblue1","indianred2","khaki"), pch=19,cex=1.5,
+      cex.main=1.4)
> lines(x=c(0.05,1.05), y=c(sum(us.e.ce0) / length(us.e.ce0), sum(us.e.ce1) / length(us.e.ce1)), col="steelblue1", lwd=2)
> lines(x=c(-0.05,0.95), y=c(sum(china.e.ce0) / length(china.e.ce0), sum(china.e.ce1) / length(china.e.ce1)), col="indianred2", lwd=2)
> lines(x=c(0,1), y=c(sum(india.e.ce0) / length(india.e.ce0), sum(india.e.ce1) / length(india.e.ce1)), col="khaki", lwd=2)
> arrows(ce, prop.encourage-se.pub, ce, prop.encourage+se.pub, length=0.05, angle=90, code=3)
> axis(1,at=c(0,1),labels=c("Control","CE Treatment"), cex.axis=1.2)
> legend("bottomleft", legend=c("US","India","China"), cex=1,
+       fill=c("steelblue1","khaki","indianred2"), bty = "n")

```

```

>
>
> ### (D) Exp 2: Public Spending
>
> #Analysis
> diff.ob <- mean(data2.w.pub$fundus[data2.w.pub$ce==1],na.rm=T) - mean(data2.w.pub$fundus[data2.w.pub$ce==0], na.rm=T)
> diff.ob #-0.03144224
[1] -0.03144224
> sims <- 5000
> treat.vector <- c(0,1)
> y1.mean <- rep(NA,sims)
> y0.mean <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   rand.treat <- sample(treat.vector, size=length(data2.w.pub$fundus), replace=T)
+   y1 <- data2.w.pub$fundus[rand.treat==1]
+   y0 <- data2.w.pub$fundus[rand.treat==0]
+   y1.mean[i] <- mean(y1, na.rm=T)
+   y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te < diff.ob))/sims #0.005
>
> diff.ob <- mean(data2.w.pub$fundfor[data2.w.pub$ce==1],na.rm=T) - mean(data2.w.pub$fundfor[data2.w.pub$ce==0], na.rm=T)
> diff.ob #0.05716352
[1] 0.05716352
> sims <- 5000
> treat.vector <- c(0,1)
> y1.mean <- rep(NA,sims)
> y0.mean <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   rand.treat <- sample(treat.vector, size=length(data2.w.pub$fundfor), replace=T)
+   y1 <- data2.w.pub$fundfor[rand.treat==1]
+   y0 <- data2.w.pub$fundfor[rand.treat==0]
+   y1.mean[i] <- mean(y1, na.rm=T)
+   y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te > diff.ob))/sims #0.0028
>
> #Plotting
> treat.public2=c(1,0,1,0)
> value.public2=c(mean(data2.w.pub$fundus[data2.w.pub$ce==1],na.rm=T),
+                 mean(data2.w.pub$fundus[data2.w.pub$ce==0],na.rm=T),
+                 mean(data2.w.pub$fundfor[data2.w.pub$ce==1],na.rm=T),
+                 mean(data2.w.pub$fundfor[data2.w.pub$ce==0],na.rm=T))
> n.public2=c(length(!is.na(data2.w.pub$fundus[data2.w.pub$ce==1])),
+             length(!is.na(data2.w.pub$fundus[data2.w.pub$ce==0])),
+             length(!is.na(data2.w.pub$fundfor[data2.w.pub$ce==1])),
+             length(!is.na(data2.w.pub$fundfor[data2.w.pub$ce==0])))
>
> d <- data.frame(matrix(nrow=10000))[, -1] #Creating empty dataframe to fill with bootstrapped means
> set.seed(201)
> for (i in 1:10000){
+   d$y1.mean.us[i] <- mean(sample(data2.w.pub$fundus[data2.w.pub$ce==1], replace=T, size=n.donate2[1]),na.rm=T)
+   d$y0.mean.us[i] <- mean(sample(data2.w.pub$fundus[data2.w.pub$ce==0], replace=T, size=n.donate2[2]),na.rm=T)
+   d$y1.mean.foreign[i] <- mean(sample(data2.w.pub$fundfor[data2.w.pub$ce==1], replace=T, size=n.donate2[3]),na.rm=T)
+   d$y0.mean.foreign[i] <- mean(sample(data2.w.pub$fundfor[data2.w.pub$ce==0], replace=T, size=n.donate2[4]),na.rm=T)
+ }
> se.public2=c(sd(d$y1.mean.us),sd(d$y0.mean.us),sd(d$y1.mean.foreign),sd(d$y0.mean.foreign))
>
> plot(x=treat.public2,y=value.public2,xaxt="n",xlim=c(-0.5,1.5),ylim=c(0.6,1),ylab="Proportion Stated Support",xlab="",
+      main="(D) Exp 2: Public Spending", col=c("steelblue1","steelblue1","black","black"), pch=19,cex=1.5, cex.main=1.4)
> lines(x=c(0,1), y=c(value.public2[2], value.public2[1]), col="steelblue1", lwd=2)
> lines(x=c(0,1), y=c(value.public2[4], value.public2[3]), col="black", lwd=2)
> axis(1,at=c(0,1),labels=c("Control","CE Treatment"), cex.axis=1,2)
> arrows(treat.public2, value.public2-se.public2, treat.public2, value.public2+se.public2, length=0.05, angle=90, code=3)
> legend("bottomleft", legend=c("US","Foreign"), cex=1,
+       fill=c("steelblue1","black"), bty = "n")
>
>
> #####
> ##Figure 3: Provisioning Benefits
> #####
>
> ### (A) Exp 2: Private Donation
>
> #Analysis (Domestic/Public Goods Prompt)
> data2.h1 <- subset(data2.willing,ce==0 & priv==0)
> mean(data2.h1$donate.us.amount[data2.h1$pub==1],na.rm=T) #3.44
[1] 3.441121
> mean(data2.h1$donate.us.amount[data2.h1$pub==0],na.rm=T) #3.28
[1] 3.284644
> diff.ob = mean(data2.h1$donate.us.amount[data2.h1$pub==1],na.rm=T) - mean(data2.h1$donate.us.amount[data2.h1$pub==0],na.rm=T)

```

```

> sims <- 5000
> y1.mean.us <- rep(NA,sims)
> y0.mean.us <- rep(NA,sims)
> set.seed(202)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h1),size=1,prob=0.5)
+   y1 <- data2.h1$donate.us.amount[treat.vector==1]
+   y0 <- data2.h1$donate.us.amount[treat.vector==0]
+   y1.mean.us[i] <- mean(y1)
+   y0.mean.us[i] <- mean(y0)
+ }
> h1.diff.us <- y1.mean.us - y0.mean.us
> hist(h1.diff.us)
> pub.p <- sum((abs(h1.diff.us) > abs(diff.ob)))/sims #0.4954
>
> #Analysis (Domestic/Provisioning Benefits)
> data2.h2 <- subset(data2.willing, pub==1)
> mean(data2.h2$donate.us.amount[data2.h2$priv==1],na.rm=T) #3.05
[1] 3.049336
> mean(data2.h2$donate.us.amount[data2.h2$priv==0],na.rm=T) #3.17
[1] 3.169476
> diff.ob.us = mean(data2.h2$donate.us.amount[data2.h2$priv==1],na.rm=T) - mean(data2.h2$donate.us.amount[data2.h2$priv==0],na.rm=T)
> diff.ob.us #-0.12
[1] -0.1201398
> sims <- 5000
> y1.mean.us <- rep(NA,sims)
> y0.mean.us <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h2),size=1,prob=0.5)
+   y1 <- data2.h2$donate.us.amount[treat.vector==1]
+   y0 <- data2.h2$donate.us.amount[treat.vector==0]
+   y1.mean.us[i] <- mean(y1)
+   y0.mean.us[i] <- mean(y0)
+ }
> h2.diff.us <- y1.mean.us - y0.mean.us
> hist(h2.diff.us)
> priv.us.p <- sum((diff.ob.us < h2.diff.us))/sims #p = 0.777
>
> #Analysis (Foreign/Public Goods Prompt)
> mean(data2.h1$donate.foreign.amount[data2.h1$pub==1],na.rm=T) #3.19
[1] 3.192523
> mean(data2.h1$donate.foreign.amount[data2.h1$pub==0],na.rm=T) #2.83
[1] 2.831461
> diff.ob = mean(data2.h1$donate.foreign.amount[data2.h1$pub==1],na.rm=T) - mean(data2.h1$donate.foreign.amount[data2.h1$pub==0],na.rm=T)
#0.36
> sims <- 5000
> y1.mean.foreign <- rep(NA,sims)
> y0.mean.foreign <- rep(NA,sims)
> set.seed(202)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h1),size=1,prob=0.5)
+   y1 <- data2.h1$donate.us.amount[treat.vector==1]
+   y0 <- data2.h1$donate.us.amount[treat.vector==0]
+   y1.mean.foreign[i] <- mean(y1)
+   y0.mean.foreign[i] <- mean(y0)
+ }
> h1.diff.foreign <- y1.mean.foreign - y0.mean.foreign
> hist(h1.diff.foreign)
> pub.p.for <- sum(h1.diff.foreign > diff.ob)/sims #0.0556
>
> #Analysis (Foreign/Provision Benefits)
> mean(data2.h2$donate.foreign.amount[data2.h2$priv==1],na.rm=T) #3.10
[1] 3.095825
> mean(data2.h2$donate.foreign.amount[data2.h2$priv==0],na.rm=T) #3.40
[1] 3.401685
> diff.ob.foreign = mean(data2.h2$donate.foreign.amount[data2.h2$priv==1],na.rm=T) -
mean(data2.h2$donate.foreign.amount[data2.h2$priv==0],na.rm=T)
> diff.ob.foreign #-0.31
[1] -0.30586
> sims <- 5000
> y1.mean.foreign <- rep(NA,sims)
> y0.mean.foreign <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   treat.vector <- rbinom(n=nrow(data2.h2),size=1,prob=0.5)
+   y1 <- data2.h2$donate.foreign.amount[treat.vector==1]
+   y0 <- data2.h2$donate.foreign.amount[treat.vector==0]
+   y1.mean.foreign[i] <- mean(y1)
+   y0.mean.foreign[i] <- mean(y0)
+ }
> h2.diff.foreign <- y1.mean.foreign - y0.mean.foreign
> hist(h2.diff.foreign)
> priv.foreign.p <- sum((diff.ob.foreign > h2.diff.foreign))/sims #p = 0.0236
>

```

```

> #Plotting
> country <- rep(c("US", "Foreign"), 3)
> country <- ordered(country, levels=c("US", "Foreign"))
> prop.donate=c(mean(data2.willing$donate.us.amount[data2.willing$pub==0], na.rm=T),
+ mean(data2.willing$donate.foreign.amount[data2.willing$pub==0], na.rm=T),
+ mean(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0], na.rm=T),
+ mean(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0], na.rm=T),
+ mean(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0], na.rm=T),
+ mean(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0], na.rm=T))
>
> n.donate=c(length(data2.willing$donate.us.amount[data2.willing$pub==0]),
+ length(data2.willing$donate.foreign.amount[data2.willing$pub==0]),
+ length(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0]),
+ length(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0]),
+ length(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0]),
+ length(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0]))
>
> d <- data.frame(matrix(nrow=10000))[, -1] #Creating empty dataframe to fill with bootstrapped means
> set.seed(201)
> for (i in 1:1000){
+ d$y0.mean.us[i] <- mean(sample(data2.willing$donate.us.amount[data2.willing$pub==0], replace=T, size=n.donate[1]), na.rm=T)
+ d$y0.mean.foreign[i] <- mean(sample(data2.willing$donate.foreign.amount[data2.willing$pub==0], replace=T, size=n.donate[2]), na.rm=T)
+ d$y1.mean.us[i] <- mean(sample(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0],
replace=T, size=n.donate[3]), na.rm=T)
+ d$y1.mean.foreign[i] <- mean(sample(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==0 &
data2.willing$ce==0], replace=T, size=n.donate[4]), na.rm=T)
+ d$y2.mean.us[i] <- mean(sample(data2.willing$donate.us.amount[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0],
replace=T, size=n.donate[5]), na.rm=T)
+ d$y2.mean.foreign[i] <- mean(sample(data2.willing$donate.foreign.amount[data2.willing$pub==1 & data2.willing$priv==1 &
data2.willing$ce==0], replace=T, size=n.donate[6]), na.rm=T)
+ }
> se.donate=c(sd(d$y0.mean.us), sd(d$y0.mean.foreign), sd(d$y1.mean.us), sd(d$y1.mean.foreign), sd(d$y2.mean.us), sd(d$y2.mean.foreign))
>
> cond <- c("Pure Control", "Pure Control", "Global Good", "Global Good", "Global Good + Local Co-Benefit", "Global Good + Local Co-Benefit")
> cond <- ordered(cond, levels=c("Pure Control", "Global Good", "Global Good + Local Co-Benefit"))
> prop.dta <- data.frame(prop.donate, se.donate, country, cond)
> se.bars <- aes(ymax = prop.donate + se.donate, ymin = prop.donate - se.donate)
> facet_names <- list(
+ 'US'="US",
+ 'Foreign'="Foreign"
+ )
> facet_labeller <- function(variable, value){
+ return(facet_names[value])
+ }
>
> fig3.a <- ggplot(data=prop.dta, aes(x=cond, y=prop.donate)) +
+ geom_point(stat="identity", colour=rev(c("black", "black", "black", "steelblue1", "steelblue1", "steelblue1")), size=4) +
+ geom_errorbar(se.bars, width=0.2) + facet_wrap(~country, labeller=facet_labeller) +
+ xlab("Treatment Condition") + ylab("Amount Donated ($)") + ggtitle("(A) Exp 2: Private Donation") +
+ theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=11)) +
+ scale_x_discrete(labels=c("Pure Control" = "Pure Control", "Global Good" = "Global Good", "Global Good + Local Co-Benefit" = "Global
Good +\nLocal Co-Benefit"))
Warning message:
The labeller API has been updated. Labellers taking `variable` and `value` arguments are now deprecated. See labellers documentation.
>
>
> ### (B) Exp 2: Public Spending
>
> #Analysis (Domestic\Public Goods Prompt)
> data.test <- subset(data2.willing, ce==0 & priv==0)
> diff.ob <- mean(data.test$fundus[data.test$pub==1], na.rm=T) - mean(data.test$fundus[data.test$pub==0], na.rm=T)
> diff.ob #0.01139055
[1] 0.01139055
> sims <- 5000
> treat.vector <- c(0,1)
> y1.mean <- rep(NA, sims)
> y0.mean <- rep(NA, sims)
> set.seed(201)
> for (i in 1:sims){
+ rand.treat <- sample(treat.vector, size=length(data.test$fundus), replace=T)
+ y1 <- data.test$fundus[rand.treat==1]
+ y0 <- data.test$fundus[rand.treat==0]
+ y1.mean[i] <- mean(y1, na.rm=T)
+ y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te > diff.ob))/sims #0.2436
>
> #Analysis (Foreign\Public Goods Prompt)
> data.test <- subset(data2.willing, ce==0 & priv==0)
> diff.ob <- mean(data.test$fundfor[data.test$pub==1], na.rm=T) - mean(data.test$fundfor[data.test$pub==0], na.rm=T)
> diff.ob #0.05448668
[1] 0.05448668
> sims <- 5000
> treat.vector <- c(0,1)

```

```

> y1.mean <- rep(NA,sims)
> y0.mean <- rep(NA,sims)
> set.seed(202)
> for (i in 1:sims){
+   rand.treat <- sample(treat.vector, size=length(data.test$fundfor), replace=T)
+   y1 <- data.test$fundfor[rand.treat==1]
+   y0 <- data.test$fundfor[rand.treat==0]
+   y1.mean[i] <- mean(y1, na.rm=T)
+   y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te > diff.ob))/sims #0.0294
>
> #Analysis (Domestic/Provisioning Benefits)
> diff.ob <- mean(data2.w.pub$fundus[data2.w.pub$priv==1],na.rm=T) - mean(data2.w.pub$fundus[data2.w.pub$priv==0], na.rm=T)
> diff.ob #0.01037057
[1] 0.01037057
> sims <- 5000
> treat.vector <- c(0,1)
> y1.mean <- rep(NA,sims)
> y0.mean <- rep(NA,sims)
> set.seed(201)
> for (i in 1:sims){
+   rand.treat <- sample(treat.vector, size=length(data2.w.pub$fundus), replace=T)
+   y1 <- data2.w.pub$fundus[rand.treat==1]
+   y0 <- data2.w.pub$fundus[rand.treat==0]
+   y1.mean[i] <- mean(y1, na.rm=T)
+   y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te > diff.ob))/sims #0.2058
>
> #Analysis (Foreign/Provisioning Benefits)
> diff.ob <- mean(data2.w.pub$fundfor[data2.w.pub$priv==1],na.rm=T) - mean(data2.w.pub$fundfor[data2.w.pub$priv==0], na.rm=T)
> diff.ob #-0.01988511
[1] -0.01988511
> sims <- 5000
> treat.vector <- c(0,1)
> y1.mean <- rep(NA,sims)
> y0.mean <- rep(NA,sims)
> for (i in 1:sims){
+   rand.treat <- sample(treat.vector, size=length(data2.w.pub$fundfor), replace=T)
+   y1 <- data2.w.pub$fundfor[rand.treat==1]
+   y0 <- data2.w.pub$fundfor[rand.treat==0]
+   y1.mean[i] <- mean(y1, na.rm=T)
+   y0.mean[i] <- mean(y0, na.rm=T)
+ }
> te <- y1.mean - y0.mean
> p <- sum((te < diff.ob))/sims #0.161
>
> #Plotting
> country2 <- rep(c("US","Foreign"),3)
> country2 <- ordered(country2, levels=c("US","Foreign"))
> prop.ps=c(mean(data2.willing$fundus[data2.willing$pub==0],na.rm=T),
+   mean(data2.willing$fundfor[data2.willing$pub==0],na.rm=T),
+   mean(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0],na.rm=T),
+   mean(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0],na.rm=T),
+   mean(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0],na.rm=T),
+   mean(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0],na.rm=T))
>
> n.ps=c(length(data2.willing$fundus[data2.willing$pub==0]),
+   length(data2.willing$fundfor[data2.willing$pub==0]),
+   length(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0]),
+   length(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0]),
+   length(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0]),
+   length(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0]))
>
> d <- data.frame(matrix(nrow=10000))[, -1] #Creating empty dataframe to fill with bootstrapped means
> set.seed(201)
> for (i in 1:10000){
+   d$yc.mean.us[i] <- mean(sample(data2.willing$fundus[data2.willing$pub==0], replace=T, size=n.donate[1]), na.rm=T)
+   d$yc.mean.foreign[i] <- mean(sample(data2.willing$fundfor[data2.willing$pub==0], replace=T, size=n.donate[2]), na.rm=T)
+   d$y0.mean.us[i] <- mean(sample(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0], replace=T,
size=n.donate[3]), na.rm=T)
+   d$y0.mean.foreign[i] <- mean(sample(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==0 & data2.willing$ce==0],
replace=T, size=n.donate[4]), na.rm=T)
+   d$y1.mean.us[i] <- mean(sample(data2.willing$fundus[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0], replace=T,
size=n.donate[5]), na.rm=T)
+   d$y1.mean.foreign[i] <- mean(sample(data2.willing$fundfor[data2.willing$pub==1 & data2.willing$priv==1 & data2.willing$ce==0],
replace=T, size=n.donate[6]), na.rm=T)
+ }
> se.ps=c(sd(d$yc.mean.us),sd(d$yc.mean.foreign),sd(d$y0.mean.us),sd(d$y0.mean.foreign),sd(d$y1.mean.us),sd(d$y1.mean.foreign))
>
> cond2 <- c("Pure Control","Pure Control","Global Good","Global Good","Global Good + Local Co-Benefit","Global Good + Local Co-Benefit")
> cond2 <- ordered(cond, levels=c("Pure Control","Global Good","Global Good + Local Co-Benefit"))

```

```

> prop.dta2 <- data.frame(prop.ps,se.ps,country2,cond2)
> se.bars2 <- aes(ymax = prop.ps + se.ps, ymin = prop.ps - se.ps)
> facet_names <- list(
+   'US'="US",
+   'Foreign'="Foreign"
+ )
> facet_labeller <- function(variable,value){
+   return(facet_names[value])
+ }
> fig3.b <- ggplot(data=prop.dta2, aes(x=cond2, y=prop.ps)) +
+   geom_point(stat="identity", colour=rev(c("black","black","black","steelblue1","steelblue1","steelblue1")), size=4) +
+   geom_errorbar(se.bars2, width=0.2) + facet_wrap(~country2, labeller=facet_labeller, scales = "free") +
+   xlab("Treatment Condition") + ylab("Proportion Stated Support") + ggtitle("(B) Exp 2: Public Spending") +
+   theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=11)) +
+   scale_x_discrete(labels=c("Pure Control" = "Pure Control", "Global Good" = "Global Good", "Global Good + Local Co-Benefit" = "Global
Good +\nLocal Co-Benefit"))
Warning message:
The labeller API has been updated. Labellers taking `variable` and `value` arguments are now deprecated. See labellers documentation.
>
>
> #####
> #####
> ##Supporting Information
> #####
> #####
> #####
> ##Table S1: Characteristics of Experimental Sample
> #####
>
> ##Study 1
> sum(data.willing$gender==2, na.rm=T)/length(data.willing$gender[!is.na(data.willing$gender)]) #Female
[1] 0.5162423
> sum(data.willing$education>=5, na.rm=T)/length(data.willing$education[!is.na(data.willing$education)]) #College Graduates
[1] 0.5087719
> sum(data.willing$employed==4, na.rm=T)/length(data.willing$employed[!is.na(data.willing$employed)]) #Unemployed
[1] 0.1122807
> sum(data.willing$race==1, na.rm=T)/length(data.willing$race[!is.na(data.willing$race)]) #White
[1] 0.7366111
> sum(data.willing$party==2, na.rm=T)/length(data.willing$party[!is.na(data.willing$party)]) #Democrat
[1] 0.4541446
> sum(data.willing$party==1, na.rm=T)/length(data.willing$party[!is.na(data.willing$party)]) #Republican
[1] 0.1472663
> sum(data.willing$party==3, na.rm=T)/length(data.willing$party[!is.na(data.willing$party)]) #Independent
[1] 0.3641975
>
> ##Study 2
> sum(data2.willing$Q55==2, na.rm=T)/length(data2.willing$Q55[!is.na(data2.willing$Q55)]) #Female
[1] 0.3987199
> sum(data2.willing$Q115>=5, na.rm=T)/length(data2.willing$Q115[!is.na(data2.willing$Q115)]) #College Graduates
[1] 0.5082831
> sum(data2.willing$Q70.1==4, na.rm=T)/length(data2.willing$Q70.1[!is.na(data2.willing$Q70.1)]) #Unemployed
[1] 0.07981928
> sum(data2.willing$Q141==1, na.rm=T)/length(data2.willing$Q141[!is.na(data2.willing$Q141)]) #White
[1] 0.7564006
> sum(data2.willing$Q142==2, na.rm=T)/length(data2.willing$Q142[!is.na(data2.willing$Q142)]) #Democrat
[1] 0.4713855
> sum(data2.willing$Q142==1, na.rm=T)/length(data2.willing$Q142[!is.na(data2.willing$Q142)]) #Republican
[1] 0.1430723
> sum(data2.willing$Q142==3, na.rm=T)/length(data2.willing$Q142[!is.na(data2.willing$Q142)]) #Independent
[1] 0.3486446
>
>
> #####
> ##Table S3: Climate opinions of national samples regarding climate harm
> #####
>
> #Ex1
> prop.table(table(data.willing$bin.cc.serious.US))
      0      1
0.1564148 0.8435852
> prop.table(table(data.willing$bin.cc.serious.foreign))
      0      1
0.1665198 0.8334802
>
> #Ex2
> #Q202 is perception of seriousness of climate change for US
> #Q203 is perception of seriousness of climate change for foreign countries
> #Response categories: 1=very serious problem; 2=somewhat serious problem; 3=less serious problem; 4=not a problem; 5=not sure;
> prop.table(table(data2.willing$Q202))

```

```

0.000376506 0.490587349 0.378765060 0.118599398 0.011671687
> prop.table(table(data2.willing$Q203))

          1          2          3          5
0.001506024 0.554969880 0.347138554 0.082454819 0.013930723
>
> #####
> ###Table S4: Treatment Assignments in Experiment 1
> #####
>
> #Donation outcome (d)
> table(data.willing$country, data.willing$effect1)

      0  1
US    194 186
India 179 211
China 186 184
>
> #Letter-writing outcome (l)
> table(data.click.willing$country, data.click.willing$effect1)

      0  1
US    158 147
India 144 170
China 159 153
>
> #####
> ###Table S5: Treatment Assignments in Experiment 2
> #####
>
> nrow(data2.willing[data2.willing$pub==0,]) #Pure control
[1] 534
> nrow(data2.willing[data2.willing$ce==0 & data2.willing$priv==0 & data2.willing$pub==1,]) #Provisioning=0 & CE=1
[1] 535
> nrow(data2.willing[data2.willing$ce==1 & data2.willing$priv==0,]) #Provisioning=0 & CE=1
[1] 533
> nrow(data2.willing[data2.willing$ce==0 & data2.willing$priv==1,]) #Provisioning=1 & CE=0
[1] 522
> nrow(data2.willing[data2.willing$ce==1 & data2.willing$priv==1,]) #Provisioning=1 & CE=1
[1] 532
>
> #####
> ###Table S6: Treatment Assignments in Ex1 for subjects unwilling to donate
> #####
>
> #Total
> table(data.willing$effect1, data.willing$country)

      US India China
0  194  179  186
1  186  211  184
>
> #no stated
> data.no <- subset(data.willing, wri.stated==0)
> table(data.no$effect1, data.no$country)

      US India China
0  142  127  141
1  122  158  137
>
> #bonus
> data.bonus <- subset(data.no, randForce==1)
> table(data.bonus$effect1, data.bonus$country)

      US India China
0  10   16   16
1  13   23   10
>
> #donated
> data.donated <- subset(data.bonus, wri.fullbonus.final==1)
> table(data.donated$effect1, data.donated$country)

      US India China
0  1    2    1
1  2    3    1
>
> #####
> ###Table S7: Manipulation checks for cost-effectiveness treatments
> #####
>
> #Study 1

```

```

> sub <- subset(data.willing, country=="US")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.13471503 0.07772021 0.17616580 0.61139896
1 0.77297297 0.02702703 0.07567568 0.12432432
>
> sub <- subset(data.willing, country=="India")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.07303371 0.11797753 0.33707865 0.47191011
1 0.04326923 0.03365385 0.10096154 0.82211538
>
> sub <- subset(data.willing, country=="China")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.07526882 0.12903226 0.37634409 0.41935484
1 0.07103825 0.72677596 0.07650273 0.12568306
>
> #Study 2
> tab <- table(data2.willing$ce,data2.willing$manipcheck) #1:Neither; 4:Rapidly Developing more; 3:Not sure; 5:US more; 6:both CE
> prop.table(tab, 1)

              1          3          4          5          6
0 0.0006285355 0.0685103708 0.3092394720 0.2721558768 0.1954745443 0.1539912005
1 0.0018779343 0.0300469484 0.1220657277 0.6638497653 0.1079812207 0.0741784038
>
>
> #####
> ###Table S8: Manipulation checks for cost-effectiveness treatments among non-college graduates
> #####
>
> #Study 1
> sub <- subset(data.willing.no.colgrad, country=="US")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.16279070 0.05813953 0.22093023 0.55813953
1 0.67816092 0.04597701 0.09195402 0.18390805
>
> sub <- subset(data.willing.no.colgrad, country=="India")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.03488372 0.11627907 0.37209302 0.47674419
1 0.05000000 0.04000000 0.11000000 0.80000000
>
> sub <- subset(data.willing.no.colgrad, country=="China")
> prop.table(table(sub$effect1,sub$recall.ce),1)

      least      most  not sure  somewhat
0 0.05000000 0.14000000 0.47000000 0.34000000
1 0.08333333 0.71875000 0.09375000 0.10416667
>
> #Study 2
> tab <- table(data2.w.no.colgrad$ce, data2.w.no.colgrad$manipcheck) #1:Neither; 4:Rapidly Developing more; 3:Not sure; 5:US more; 6:both CE
> prop.table(tab, 1)

              1          3          4          5          6
0 0.0000000000 0.075129534 0.325129534 0.240932642 0.194300518 0.164507772
1 0.001872659 0.037453184 0.134831461 0.612359551 0.127340824 0.086142322
>
>
> #####
> ###Figure S1: Discouraging Public Spending in Experiment 1
> #####
>
> #Analysis
> data.china.test <- subset(data.click.willing, country!="India" & effect1==0)
> data.china.test$treat.china <- ifelse(data.china.test$country=="China",1,0)
> mean(data.china.test$govt.discourage.rep.final[data.china.test$treat.china==0]) #0.01265823
[1] 0.01265823
> mean(data.china.test$govt.discourage.rep.final[data.china.test$treat.china==1]) #0.05031447
[1] 0.05031447
> perms <- genperms(data.china.test$treat.china) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 1.193695896881e+94 to perform exact estimation.
> ate <- estate(data.china.test$govt.discourage.rep.final, data.china.test$treat.china) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.china.test$govt.discourage.rep.final, data.china.test$treat.china) :
  Probabilities not specified. Assuming equal probabilities.

```

```

> Ys <- genouts(data.china.test$govt.discourage.rep.final, data.china.test$treat.china, ate=0) # generate potential outcomes under sharp
null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.038

$two.tailed.p.value.abs
[1] 0.0694

$greater.p.value
[1] 0.019

$lesser.p.value
[1] 0.981

$quantile
      2.5%      97.5%
-0.03809503  0.03764695

$sd
[1] 0.01971849

$exp.val
[1] 2.881411e-07

>
> data.india.test <- subset(data.click.willing, country!="China" & effect1==0)
> data.india.test$treat.india <- ifelse(data.india.test$country=="India",1,0)
> mean(data.india.test$govt.discourage.rep.final[data.india.test$treat.india==0]) #0.01265823
[1] 0.01265823
> mean(data.india.test$govt.discourage.rep.final[data.india.test$treat.india==1]) #0.02777778
[1] 0.02777778
> perms <- genperms(data.india.test$treat.india) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 2.70471415145649e+89 to perform exact estimation.
> ate <- estate(data.india.test$govt.discourage.rep.final, data.india.test$treat.india) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.india.test$govt.discourage.rep.final, data.india.test$treat.india) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.india.test$govt.discourage.rep.final, data.india.test$treat.india, ate=0) # generate potential outcomes under sharp
null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.3326

$two.tailed.p.value.abs
[1] 0.297

$greater.p.value
[1] 0.1663

$lesser.p.value
[1] 0.8337

$quantile
      2.5%      97.5%
-0.02473109  0.02840626

$sd
[1] 0.01598011

$exp.val
[1] 3.383434e-08

>
> data.us.ce.test <- subset(data.click.willing, country=="US")
> mean(data.us.ce.test$govt.discourage.rep.final[data.us.ce.test$effect1==0]) #0.01265823
[1] 0.01265823
> mean(data.us.ce.test$govt.discourage.rep.final[data.us.ce.test$effect1==1]) #0.006802721
[1] 0.006802721
> perms <- genperms(data.us.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 2.44173895562917e+90 to perform exact estimation.
> ate <- estate(data.us.ce.test$govt.discourage.rep.final, data.us.ce.test$effect1) #point estimate of the ATE (simple in this case)
Warning message:
In estate(data.us.ce.test$govt.discourage.rep.final, data.us.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.

```

```

> Ys <- genouts(data.us.ce.test$govt.discourage.rep.final, data.us.ce.test$effect1, ate=0) # generate potential outcomes under sharp null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.2834

$two.tailed.p.value.abs
[1] 0.6132

$greater.p.value
[1] 0.8583

$lesser.p.value
[1] 0.1417

$quantile
      2.5%      97.5%
-0.01897058  0.02044943

$sd
[1] 0.01143461

$exp.val
[1] -6.39807e-08

>
> data.china.ce.test <- subset(data.click.willing, country=="China")
> mean(data.china.ce.test$govt.discourage.rep.final[data.china.ce.test$effect1==0]) #0.05031447
[1] 0.05031447
> mean(data.china.ce.test$govt.discourage.rep.final[data.china.ce.test$effect1==1]) #0.03921569
[1] 0.03921569
> perms <- genperms(data.china.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 3.55546635683556e+92 to perform exact estimation.
> ate <- estate(data.china.ce.test$govt.discourage.rep.final, data.china.ce.test$effect1) #point estimate of the ATE (simple in this
case)
Warning message:
In estate(data.china.ce.test$govt.discourage.rep.final, data.china.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.
> Ys <- genouts(data.china.ce.test$govt.discourage.rep.final, data.china.ce.test$effect1, ate=0) # generate potential outcomes under
sharp null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.4552

$two.tailed.p.value.abs
[1] 0.5921

$greater.p.value
[1] 0.7724

$lesser.p.value
[1] 0.2276

$quantile
      2.5%      97.5%
-0.04945256  0.04034701

$sd
[1] 0.02336773

$exp.val
[1] -4.157031e-07

>
> data.india.ce.test <- subset(data.click.willing, country=="India")
> mean(data.india.ce.test$govt.discourage.rep.final[data.india.ce.test$effect1==0]) #0.02777778
[1] 0.02777778
> mean(data.india.ce.test$govt.discourage.rep.final[data.india.ce.test$effect1==1]) #0.04705882
[1] 0.04705882
> perms <- genperms(data.india.ce.test$effect1) # all possible permutations of treatment
Too many permutations to use exact method.
Defaulting to approximate method.
Increase maxiter to at least 5.12878181536557e+92 to perform exact estimation.
> ate <- estate(data.india.ce.test$govt.discourage.rep.final, data.india.ce.test$effect1) #point estimate of the ATE (simple in this
case)
Warning message:
In estate(data.india.ce.test$govt.discourage.rep.final, data.india.ce.test$effect1) :
  Probabilities not specified. Assuming equal probabilities.

```

```

> Ys <- genouts(data.india.ce.test$govt.discourage.rep.final, data.india.ce.test$effect1, ate=0) # generate potential outcomes under
sharp null
> distout <- gendist(Ys,perms) # generate sampling distribution under sharp null
Warning message:
In gendist(Ys, perms) : Generating probabilities from permutation matrix.
> dispdist(distout, ate) # display characteristics of sampling dist. for inference
$two.tailed.p.value
[1] 0.2338

$two.tailed.p.value.abs
[1] 0.3234

$greater.p.value
[1] 0.1169

$lesser.p.value
[1] 0.8831

$quantile
      2.5%      97.5%
-0.04493159  0.04484871

$sd
[1] 0.02158717

$exp.val
[1] 2.600015e-07

>
> #Plotting
> ce = c(0.05,-0.05,0,1.05,0.95,1)
>
> us.e.ce0 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="US" & data.click.willing$effect1==0]
> china.e.ce0 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="China" & data.click.willing$effect1==0]
> india.e.ce0 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="India" & data.click.willing$effect1==0]
> us.e.ce1 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="US" & data.click.willing$effect1==1]
> china.e.ce1 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="China" & data.click.willing$effect1==1]
> india.e.ce1 <- data.click.willing$govt.discourage.rep.final[data.click.willing$country=="India" & data.click.willing$effect1==1]
>
> prop.encourage=c(sum(us.e.ce0) / length(us.e.ce0),
+                  sum(china.e.ce0) / length(china.e.ce0),
+                  sum(india.e.ce0) / length(india.e.ce0),
+                  sum(us.e.ce1) / length(us.e.ce1),
+                  sum(china.e.ce1) / length(china.e.ce1),
+                  sum(india.e.ce1) / length(india.e.ce1)
+ )
> se.pub <- c(sd(rbinom(size=length(us.e.ce0), n=10000, prob=mean(us.e.ce0)) / length(us.e.ce0)),
+            sd(rbinom(size=length(china.e.ce0), n=10000, prob=mean(china.e.ce0)) / length(china.e.ce0)),
+            sd(rbinom(size=length(india.e.ce0), n=10000, prob=mean(india.e.ce0)) / length(india.e.ce0)),
+            sd(rbinom(size=length(us.e.ce1), n=10000, prob=mean(us.e.ce1)) / length(us.e.ce1)),
+            sd(rbinom(size=length(china.e.ce1), n=10000, prob=mean(china.e.ce1)) / length(china.e.ce1)),
+            sd(rbinom(size=length(india.e.ce1), n=10000, prob=mean(india.e.ce1)) / length(india.e.ce1))
+ )
>
> #pdf("FigS1_JEPS-Final.pdf", width=4, height=4)
> par(mfrow=c(1,1),mar=c(2.1,4.1,2.1,1.1),mgp=c(2,1,0))
> plot(x=ce,y=prop.encourage,xaxt="n",xlim=c(-0.3,1.3),ylim=c(0.00,0.08),ylab="Proportion Writing to Discourage Public Spending \n and
Clicking Representative Link",xlab="",
+      main="Discourage Public Spending", col=c("steelblue1","indianred2","khaki","steelblue1","indianred2","khaki"), pch=19,cex=1.5)
>
> lines(x=c(0.05,1.05), y=c(sum(us.e.ce0) / length(us.e.ce0), sum(us.e.ce1) / length(us.e.ce1)), col="steelblue1", lwd=2)
> lines(x=c(-0.05,0.95), y=c(sum(china.e.ce0) / length(china.e.ce0), sum(china.e.ce1) / length(china.e.ce1)), col="indianred2", lwd=2)
> lines(x=c(0,1), y=c(sum(india.e.ce0) / length(india.e.ce0), sum(india.e.ce1) / length(india.e.ce1)), col="khaki", lwd=2)
> arrows(ce, prop.encourage-se.pub, ce, prop.encourage+se.pub, length=0.05, angle=90, code=3)
> axis(1,at=c(0,1),labels=c("No Info","CE Info"))
> legend("top", legend=c("China","India","US"), cex=1,
+       fill=c("indianred2","khaki","steelblue1"), bty = "n")
> #dev.off()
>
>
> #####
> ##Table S9: Binary and Donation Amount in Experiment 2
> #####
>
> any <- lm(donate.any ~ ce*priv, data=data2.w.pub)
> summary(any)

```

```

Call:
lm(formula = donate.any ~ ce * priv, data = data2.w.pub)

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.7111 -0.6860  0.2931  0.2970  0.3140

```



```

Coefficients:
      (Intercept)          ce          priv          ce:priv
us.only          -2.2961903 -0.42518477  0.761617458 -0.25799989
foreign.only     -2.3979268  0.68818442 -0.028721739 -0.07391960
neither          -0.6061516 -0.07392009 -0.008875875  0.06798123

```

```

Std. Errors:
      (Intercept)          ce          priv          ce:priv
us.only          0.18843282  0.2979933  0.2354437  0.3786500
foreign.only     0.19738727  0.2458328  0.2872247  0.3580573
neither          0.09591207  0.1377752  0.1388116  0.1969315

```

Residual Deviance: 4455.134

AIC: 4479.134

> `coefest(multi)`

z test of coefficients:

	Estimate	Std. Error	z value	Pr(> z)
us.only:(Intercept)	-2.2961903	0.1884328	-12.1857	< 2.2e-16 ***
us.only:ce	-0.4251848	0.2979933	-1.4268	0.153630
us.only:priv	0.7616175	0.2354437	3.2348	0.001217 **
us.only:ce:priv	-0.2579999	0.3786500	-0.6814	0.495639
foreign.only:(Intercept)	-2.3979268	0.1973873	-12.1483	< 2.2e-16 ***
foreign.only:ce	0.6881844	0.2458328	2.7994	0.005120 **
foreign.only:priv	-0.0287217	0.2872247	-0.1000	0.920346
foreign.only:ce:priv	-0.0739196	0.3580573	-0.2064	0.836442
neither:(Intercept)	-0.6061516	0.0959121	-6.3199	2.618e-10 ***
neither:ce	-0.0739201	0.1377752	-0.5365	0.591595
neither:priv	-0.0088759	0.1388116	-0.0639	0.949017
neither:ce:priv	0.0679812	0.1969315	0.3452	0.729942

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

>
> stargazer(multi, type = "html",
+   dep.var.labels = c("US Only", "Foreign Only", "Neither"),
+   covariate.labels = c("Cost-Effectiveness", "Provisioning", "Cost-Effectiveness * Provisioning", "Intercept"),
+   df = FALSE, omit.stat = c("rsq", "ser")
+ )

```

```


|                                                                 |                                   |                       |                       |                       |
|-----------------------------------------------------------------|-----------------------------------|-----------------------|-----------------------|-----------------------|
|                                                                 |                                   |                       |                       |                       |
| Dependent variable:                                             |                                   |                       |                       |                       |
|                                                                 |                                   |                       |                       |                       |
|                                                                 | US Only                           | Foreign Only          | Neither               |                       |
|                                                                 | (1)                               | (2)                   | (3)                   |                       |
|                                                                 |                                   |                       |                       |                       |
|                                                                 | Cost-Effectiveness                | -0.425                |                       |                       |
|                                                                 | 0.688 <sup>***</sup>              | -0.074                |                       |                       |
|                                                                 | (0.298)                           | (0.246)               | (0.138)               |                       |
|                                                                 |                                   |                       |                       |                       |
|                                                                 | Provisioning                      | 0.762 <sup>***</sup>  | -0.029                | -0.009                |
|                                                                 | (0.235)                           | (0.287)               | (0.139)               |                       |
|                                                                 | Cost-Effectiveness * Provisioning | -0.258                | -0.074                | 0.068                 |
|                                                                 | (0.379)                           | (0.358)               | (0.197)               |                       |
|                                                                 | Intercept                         | -2.296 <sup>***</sup> | -2.398 <sup>***</sup> | -0.606 <sup>***</sup> |
|                                                                 | (0.188)                           | (0.197)               | (0.096)               |                       |
|                                                                 |                                   |                       |                       |                       |
|                                                                 |                                   |                       |                       |                       |
| Akaike Inf. Crit.                                               |                                   |                       |                       |                       |
| 4,479.134                                                       |                                   |                       |                       |                       |
|                                                                 |                                   |                       |                       |                       |
| Note:                                                           |                                   |                       |                       |                       |
| <sup>*</sup> p<0.1; <sup>**</sup> p<0.05; <sup>***</sup> p<0.01 |                                   |                       |                       |                       |


```

```

>
> #####
> ##Figure S2: Home preference among self-described Democrats
> #####
>
> #Donation 1
> #Note: Overwriting objects from main to avoid recoding plotting code
> #Note: Rerun setup blocks if going back to any of the analyses/plots above
>
> data.willing <- subset(data,cc.not.willing==0 & effect1==0 & party==2)
> data.willing.us.ce0 <- subset(data.willing, country=="US")
> data.willing.india.ce0 <- subset(data.willing, country=="India")
> data.willing.china.ce0 <- subset(data.willing, country=="China")
>
> no.vector.us.ce0<-data.willing.us.ce0$wri.fullbonus.final[data.willing.us.ce0$wri.stated==0 & data.willing.us.ce0$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce0<-data.willing.china.ce0$wri.fullbonus.final[data.willing.china.ce0$wri.stated==0 &
data.willing.china.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce0<-data.willing.india.ce0$wri.fullbonus.final[data.willing.india.ce0$wri.stated==0 &

```

```

data.willing.india.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
>
> prob.switch.us.ce0 <- sum(no.vector.us.ce0)/length(no.vector.us.ce0) #This is the probability of donating after stating "no"
> prob.switch.china.ce0 <- sum(no.vector.china.ce0)/length(no.vector.china.ce0) #This is the probability of donating after stating "no"
> prob.switch.india.ce0 <- sum(no.vector.india.ce0)/length(no.vector.india.ce0) #This is the probability of donating after stating "no"
>
> #Setting up for the simulation
> imp <- data.willing$wri.fullbonus.final
> treat.country <- unique(data.willing$country)
> sims <- 10000
>
> us.ob.ce0 <- rep(NA,sims)
> china.ob.ce0 <- rep(NA,sims)
> india.ob.ce0 <- rep(NA,sims)
>
> ate.china <- rep(NA,sims)
> ate.india <- rep(NA,sims)
>
> #The sampling distribution for the ATE under the sharp null is formed over repeated imputations
> #This imputes a full data.willing set, sampling from the observed values for donating after stating "no"
> set.seed(201)
> for (j in 1:sims){
+
+   for (i in 1:nrow(data.willing)){
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="US"){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.us.ce0)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="China"){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.china.ce0)}
+     if(is.na(data.willing$wri.fullbonus.final)[i] & data.willing$country[i]=="India"){
+       imp[i] <- rbinom(n=1,size=1,prob=prob.switch.india.ce0)}
+   }
+
+   treatment.country <- sample(treat.country, size=nrow(data.willing), replace=TRUE)
+
+   us.ob.ce0[j] <- mean(imp[data.willing$country=="US" & data.willing$effect1==0])
+   china.ob.ce0[j] <- mean(imp[data.willing$country=="China" & data.willing$effect1==0])
+   india.ob.ce0[j] <- mean(imp[data.willing$country=="India" & data.willing$effect1==0])
+
+   ate.china[j] <- mean(imp[treatment.country=="China" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+   ate.india[j] <- mean(imp[treatment.country=="India" & data.willing$effect1==0]) - mean(imp[treatment.country=="US" &
data.willing$effect1==0])
+ }
>
> #Means after imputation:
> mean(us.ob.ce0) #0.3014809
[1] 0.3014809
> mean(india.ob.ce0) #0.3039405
[1] 0.3039405
> mean(china.ob.ce0) #0.1948053
[1] 0.1948053
>
> #SEs of mean value (this is different than SEs of imputation)
> set.seed(201)
> se <- c(sd(rbinom(size=nrow(data.willing.us.ce0), n=10000, prob=0.3014809)/nrow(data.willing.us.ce0)),
+        sd(rbinom(size=nrow(data.willing.india.ce0), n=10000, prob=0.3039405)/nrow(data.willing.india.ce0)),
+        sd(rbinom(size=nrow(data.willing.china.ce0), n=10000, prob=0.1948053)/nrow(data.willing.china.ce0))
+ )
> se <- c(0.04856768,0.05338192,0.04081898) #Based exactly on above
>
> country <- rev(c("US","India","China"))
> prop.donate<-rev(c(0.3014809,0.3039405,0.1948053)) #From "Means after imputation" directly above
> se <- rev(se)
> prop.dta <- data.frame(prop.donate,country,se)
> se.bars <- aes(ymax = prop.donate + se, ymin = prop.donate - se)
>
> figS2.a<-ggplot(data=prop.dta, aes(x=country, y=prop.donate)) + theme_grey() + scale_x_discrete(limits = country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1","khaki","indianred2")), colour="black") + geom_errorbar(se.bars, width=0.3) +
+   ylab("Proportion Donating") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+   xlab("") +
+   coord_flip() +
+   ggtitle("(A) Exp 1: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Donation 2
> data2.w.pure.control.dem <- subset(data2.w.pure.control, Q142==2)
> dta2 <- melt(data2.w.pure.control.dem, measure.vars = c('donate.foreign.amount','donate.us.amount')) #Make the object as we want it,
selecting final two columns
> dta2 <- dta2[, (ncol(dta2)-1):ncol(dta2)]
>
> names(dta2) <- c("Country","Amount")
> dta2$Country <- ifelse(dta2$Country=="donate.foreign.amount","Foreign","US")
> mean.info <- dplyr::summarise(dta2, "Country", summarise, donate.mean=mean(Amount))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)

```

```

> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta2$Amount[1:243], size=243, replace=T))
+   US.store[i] <- mean(sample(dta2$Amount[244:486], size=243, replace=T))
+ }
> mean.info$se[1] <- sd(foreign.store)
> mean.info$se[2] <- sd(US.store)
> se.bars2 <- aes(ymax = mean.info$donate.mean + mean.info$se, ymin = mean.info$donate.mean - mean.info$se)
>
> figS2.b<-ggplot(mean.info, aes(x=Country, y=donate.mean)) + theme_grey() + scale_x_discrete(limits = mean.info$Country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars2, width=0.3) +
+   ylab("Amount Donated ($)") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+   xlab("") +
+   coord_flip() +
+   ggtitle("(B) Exp 2: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 1
> data.click.willing.dem <- subset(data.click.willing, party==2)
> tab <- as.data.frame.matrix(table(data.click.willing.dem$country, data.click.willing.dem$govt.encourage.rep.final))
> names(tab) <- c("X0", "X1")
> tab$n <- tab$X1 + tab$X0
> tab$prop.govt.encourage <- tab$X1/(tab$X0+tab$X1)
>
> us.store <- rep(NA, 10000)
> india.store <- rep(NA, 10000)
> china.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   us.store[i] <- mean(rbinom(n=tab$n[1], size=1, prob=tab$prop.govt.encourage[1]))
+   india.store[i] <- mean(rbinom(n=tab$n[2], size=1, prob=tab$prop.govt.encourage[2]))
+   china.store[i] <- mean(rbinom(n=tab$n[3], size=1, prob=tab$prop.govt.encourage[3]))
+ }
> tab$se[1] <- sd(us.store)
> tab$se[2] <- sd(india.store)
> tab$se[3] <- sd(china.store)
> tab$country <- row.names(tab)
> tab <- tab[order(tab$country),]
> se.bars.ps1 <- aes(ymax = tab$prop.govt.encourage + tab$se, ymin = tab$prop.govt.encourage - tab$se)
>
> figS2.c<-ggplot(tab, aes(x=country, y=prop.govt.encourage)) + theme_grey() + scale_x_discrete(limits = tab$country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "khaki", "indianred2")), colour="black") + geom_errorbar(se.bars.ps1, width=0.3) +
+   ylab("Proportion Writing to Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12,
+   colour="black")) + xlab("") +
+   coord_flip() +
+   ggtitle("(C) Exp 1: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 2
> data2.w.pure.control.dem <- subset(data2.w.pure.control, Q142==2)
> dta4 <- melt(data2.w.pure.control.dem, measure.vars = c("fundus", "fundfor")) #Make the object as we want it, selecting final two
+ columns
> dta4 <- dta4[, (ncol(dta4)-1):ncol(dta4)]
> names(dta4) <- c("Country", "Write")
> dta4$Country <- ifelse(dta4$Country=="fundfor", "Foreign", "US")
> mean.info4 <- ddply(dta4, "Country", summarise, write.mean=mean(Write, na.rm=T))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta4$Write[1:243], size=243, replace=T, na.rm=T))
+   US.store[i] <- mean(sample(dta4$Write[244:486], size=243, replace=T, na.rm=T))
+ }
> mean.info4$se[1] <- sd(foreign.store)
> mean.info4$se[2] <- sd(US.store)
> se.bars4 <- aes(ymax = mean.info4$write.mean + mean.info4$se, ymin = mean.info4$write.mean - mean.info4$se)
>
> figS2.d<-ggplot(mean.info4, aes(x=Country, y=write.mean)) + theme_grey() + scale_x_discrete(limits = mean.info4$Country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars4, width=0.3) +
+   ylab("Proportion Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+   xlab("") +
+   coord_flip() +
+   ggtitle("(D) Exp 2: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> S2 <- plot_grid(figS2.a, figS2.b, figS2.c, figS2.d)
>
>
> #####
> ##Figure S3: Home preference among self-described Republicans
> #####
>
> ##Donation 1
> #Note: Overwriting objects from main to avoid recoding plotting code
> #Note: Rerun setup blocks if going back to any of the analyses/plots above
> data.willing <- subset(data, cc.not.willing==0 & effect1==0 & party==1)
> data.willing.us.ce0 <- subset(data.willing, country=="US")

```

```

> data.willing.india.ce0 <- subset(data.willing, country=="India")
> data.willing.china.ce0 <- subset(data.willing, country=="China")
>
> no.vector.us.ce0<-data.willing.us.ce0$wri.fullbonus.final[data.willing.us.ce0$wri.stated==0 & data.willing.us.ce0$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce0<-data.willing.china.ce0$wri.fullbonus.final[data.willing.china.ce0$wri.stated==0 &
data.willing.china.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce0<-data.willing.india.ce0$wri.fullbonus.final[data.willing.india.ce0$wri.stated==0 &
data.willing.india.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
>
> prob.switch.us.ce0 <- sum(no.vector.us.ce0)/length(no.vector.us.ce0) #This is the probability of donating after stating "no"
> prob.switch.china.ce0 <- sum(no.vector.china.ce0)/length(no.vector.china.ce0) #This is the probability of donating after stating "no"
> prob.switch.india.ce0 <- sum(no.vector.india.ce0)/length(no.vector.india.ce0) #This is the probability of donating after stating "no"
>
> #Setting up for the simulation
> imp <- data.willing$wri.fullbonus.final
> table(imp)
imp
0 1
9 4
> #Note: insufficient number of observations (11) for the imputation to run behavioral result
> #Note: switching to stated intention to vote
>
> prop.donate <- c(sum(data.willing.us.ce0$wri.stated)/length(data.willing.us.ce0$wri.stated),
+ sum(data.willing.india.ce0$wri.stated)/length(data.willing.india.ce0$wri.stated),
+ sum(data.willing.china.ce0$wri.stated)/length(data.willing.china.ce0$wri.stated))
>
> #SEs of prop.donate
> set.seed(201)
> se <- c(sd(rbinom(size=nrow(data.willing.us.ce0), n=10000, prob=0.03846154)/nrow(data.willing.us.ce0)),
+ sd(rbinom(size=nrow(data.willing.india.ce0), n=10000, prob=0.14814815)/nrow(data.willing.india.ce0)),
+ sd(rbinom(size=nrow(data.willing.china.ce0), n=10000, prob=0.08333333)/nrow(data.willing.china.ce0)))
> #Note: probabilities come from prop.donate
>
> se <- c(0.03757992,0.06833109,0.05643995) #Based exactly on above
>
> country <- rev(c("US","India","China"))
> prop.donate<-rev(c(0.03846154,0.14814815,0.08333333)) #From "Means after imputation" directly above
> se <- rev(c(0.03757992,0.06833109,0.05643995)) #From "se" directly above
> prop.dta <- data.frame(prop.donate,country,se)
> se.bars <- aes(ymax = prop.donate + se, ymin = prop.donate - se)
>
> figS3.a<-ggplot(data=prop.dta, aes(x=country, y=prop.donate)) + theme_grey() + scale_x_discrete(limits = country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1","khaki","indianred2")), colour="black") + geom_errorbar(se.bars, width=0.3) +
+ ylab("Proportion Willing to Donate") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12,
colour="black")) + xlab("") +
+ coord_flip() +
+ ggtitle("(A) Exp 1: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Donation 2
> data2.w.pure.control.rep <- subset(data2.w.pure.control, Q142==1)
> dta2 <- melt(data2.w.pure.control.rep, measure.vars = c('donate.foreign.amount', 'donate.us.amount'))
> dta2 <- dta2[, (ncol(dta2)-1):ncol(dta2)]
> names(dta2) <- c("Country", "Amount")
> dta2$Country <- ifelse(dta2$Country=="donate.foreign.amount", "Foreign", "US")
> mean.info <- dplyr(dta2, "Country", summarise, donate.mean=mean(Amount))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+ foreign.store[i] <- mean(sample(dta2$Amount[1:74], size=74, replace=T))
+ US.store[i] <- mean(sample(dta2$Amount[75:148], size=74, replace=T))
+ }
> mean.info$se[1] <- sd(foreign.store)
> mean.info$se[2] <- sd(US.store)
> se.bars2 <- aes(ymax = mean.info$donate.mean + mean.info$se, ymin = mean.info$donate.mean - mean.info$se)
>
> figS3.b<-ggplot(mean.info, aes(x=Country, y=donate.mean)) + theme_grey() + scale_x_discrete(limits = mean.info$Country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1","darkslategrey")), colour="black") + geom_errorbar(se.bars2, width=0.3) +
+ ylab("Amount Donated ($)") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
xlab("") +
+ coord_flip() +
+ ggtitle("(B) Exp 2: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 1
> data.click.willing.rep <- subset(data.click.willing, party==1)
> tab <- as.data.frame.matrix(table(data.click.willing.rep$country, data.click.willing.rep$govt.encourage.rep.final))
> names(tab) <- c("X0", "X1")
> tab$n <- tab$X1 + tab$X0
> tab$prop.govt.encourage <- tab$X1/(tab$X0+tab$X1)
>
> us.store <- rep(NA, 10000)
> india.store <- rep(NA, 10000)
> china.store <- rep(NA, 10000)

```

```

> set.seed(201)
> for (i in 1:10000){
+   us.store[i] <- mean(rbinom(n=tab$N[1], size=1, prob=tab$prop.govt.encourage[1]))
+   india.store[i] <- mean(rbinom(n=tab$N[2], size=1, prob=tab$prop.govt.encourage[2]))
+   china.store[i] <- mean(rbinom(n=tab$N[3], size=1, prob=tab$prop.govt.encourage[3]))
+ }
> tab$se[1] <- sd(us.store)
> tab$se[2] <- sd(india.store)
> tab$se[3] <- sd(china.store)
> tab$country <- row.names(tab)
> tab <- tab[order(tab$country),]
> se.bars.ps1 <- aes(ymax = tab$prop.govt.encourage + tab$se, ymin = tab$prop.govt.encourage - tab$se)
>
> figS3.c<-ggplot(tab, aes(x=country, y=prop.govt.encourage)) + theme_grey() + scale_x_discrete(limits = tab$country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "khaki", "indianred2")), colour="black") + geom_errorbar(se.bars.ps1, width=0.3) +
+   ylab("Proportion Writing to Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12,
colour="black")) + xlab("") +
+   coord_flip() +
+   ggtitle("(C) Exp 1: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 2
> data2.w.pure.control.rep <- subset(data2.w.pure.control, Q142==1)
> dta4 <- melt(data2.w.pure.control.rep, measure.vars = c("fundus", "fundfor"))
> dta4 <- dta4[, (ncol(dta4)-1):ncol(dta4)]
> names(dta4) <- c("Country", "Write")
> dta4$Country <- ifelse(dta4$Country=="fundfor", "Foreign", "US")
> mean.info4 <- ddply(dta4, "Country", summarise, write.mean=mean(Write, na.rm=T))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta4$Write[1:74], size=74, replace=T, na.rm=T))
+   US.store[i] <- mean(sample(dta4$Write[75:148], size=74, replace=T, na.rm=T))
+ }
> mean.info4$se[1] <- sd(foreign.store)
> mean.info4$se[2] <- sd(US.store)
> se.bars4 <- aes(ymax = mean.info4$write.mean + mean.info4$se, ymin = mean.info4$write.mean - mean.info4$se)
>
> figS3.d<-ggplot(mean.info4, aes(x=Country, y=write.mean)) + theme_grey() + scale_x_discrete(limits = mean.info4$Country) +
+   geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars4, width=0.3) +
+   ylab("Proportion Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+   xlab("") +
+   coord_flip() +
+   ggtitle("(D) Exp 2: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> S3 <- plot_grid(figS3.a, figS3.b, figS3.c, figS3.d)
>
>
> #####
> ##Figure S4: Home preference among self-described Independents
> #####
>
> ##Donation 1
> #Overwriting objects from main ClimateTransfers.R analysis to keep from recoding
> data.willing <- subset(data, cc.not.willing==0 & effect1==0 & party==3)
> data.willing.us.ce0 <- subset(data.willing, country=="US")
> data.willing.india.ce0 <- subset(data.willing, country=="India")
> data.willing.china.ce0 <- subset(data.willing, country=="China")
>
> no.vector.us.ce0<-data.willing.us.ce0$wri.fullbonus.final[data.willing.us.ce0$wri.stated==0 & data.willing.us.ce0$randForce==1] #These
are the observations of the "no" respondents who were forced to the bonus part
> no.vector.china.ce0<-data.willing.china.ce0$wri.fullbonus.final[data.willing.china.ce0$wri.stated==0 &
data.willing.china.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
> no.vector.india.ce0<-data.willing.india.ce0$wri.fullbonus.final[data.willing.india.ce0$wri.stated==0 &
data.willing.india.ce0$randForce==1] #These are the observations of the "no" respondents who were forced to the bonus part
>
> #Note: probability of switching for independents is always zero in our sample
>
> data.willing$wri.fullbonus.final[is.na(data.willing$wri.fullbonus.final)] <- 0
> data.willing.us.ce0 <- subset(data.willing, country=="US")
> data.willing.india.ce0 <- subset(data.willing, country=="India")
> data.willing.china.ce0 <- subset(data.willing, country=="China")
>
> prop.donate <- c(sum(data.willing.us.ce0$wri.fullbonus.final)/length(data.willing.us.ce0$wri.fullbonus.final),
+   sum(data.willing.india.ce0$wri.fullbonus.final)/length(data.willing.india.ce0$wri.fullbonus.final),
+   sum(data.willing.china.ce0$wri.fullbonus.final)/length(data.willing.china.ce0$wri.fullbonus.final))
>
> #SEs of prop.donate
> set.seed(201)
> se <- c(sd(rbinom(size=nrow(data.willing.us.ce0), n=10000, prob=0.18309859)/nrow(data.willing.us.ce0)),
+   sd(rbinom(size=nrow(data.willing.india.ce0), n=10000, prob=0.14492754)/nrow(data.willing.india.ce0)),
+   sd(rbinom(size=nrow(data.willing.china.ce0), n=10000, prob=0.07017544)/nrow(data.willing.china.ce0)))
+ ) #Note: probabilities come from prop.donate
>

```

```

> se <- c(0.04574577,0.04237056,0.03401052) #Based exactly on above
>
> country <- rev(c("US","India","China"))
> prop.donate<-rev(prop.donate) #From "prop.donate" directly above
> se <- rev(se) #From "se" directly above
> prop.dta <- data.frame(prop.donate,country,se)
> se.bars <- aes(ymax = prop.donate + se, ymin = prop.donate - se)
>
> figS4.a<-ggplot(data=prop.dta, aes(x=country, y=prop.donate)) + theme_grey() + scale_x_discrete(limits = country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1","khaki","indianred2")), colour="black") + geom_errorbar(se.bars, width=0.3) +
+ ylab("Proportion Donating") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
xlab("") +
+ coord_flip() +
+ ggtitle("(A) Exp 1: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Donation 2
> data2.w.pure.control.ind <- subset(data2.w.pure.control, Q142==3)
> dta2 <- melt(data2.w.pure.control.ind, measure.vars = c('donate.foreign.amount','donate.us.amount'))
> dta2 <- dta2[, (ncol(dta2)-1):ncol(dta2)]
> names(dta2) <- c("Country", "Amount")
> dta2$Country <- ifelse(dta2$Country=="donate.foreign.amount", "Foreign", "US")
> mean.info <- ddply(dta2, "Country", summarise, donate.mean=mean(Amount))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta2$Amount[1:196], size=196, replace=T))
+   US.store[i] <- mean(sample(dta2$Amount[197:392], size=196, replace=T))
+ }
> mean.info$se[1] <- sd(foreign.store)
> mean.info$se[2] <- sd(US.store)
> se.bars2 <- aes(ymax = mean.info$donate.mean + mean.info$se, ymin = mean.info$donate.mean - mean.info$se)
>
> figS4.b<-ggplot(mean.info, aes(x=Country, y=donate.mean)) + theme_grey() + scale_x_discrete(limits = mean.info$Country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1","darkslategrey")), colour="black") + geom_errorbar(se.bars2, width=0.3) +
+ ylab("Amount Donated ($)") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
xlab("") +
+ coord_flip() +
+ ggtitle("(B) Exp 2: Private Donation") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 1
> data.click.willing.ind <- subset(data.click.willing, party==3)
> tab <- as.data.frame.matrix(table(data.click.willing.ind$country, data.click.willing.ind$govt.encourage.rep.final))
> names(tab) <- c("X0", "X1")
> tab$n <- tab$X1 + tab$X0
> tab$prop.govt.encourage <- tab$X1/(tab$X0+tab$X1)
>
> us.store <- rep(NA, 10000)
> india.store <- rep(NA, 10000)
> china.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   us.store[i] <- mean(rbinom(n=tab$n[1], size=1, prob=tab$prop.govt.encourage[1]))
+   india.store[i] <- mean(rbinom(n=tab$n[2], size=1, prob=tab$prop.govt.encourage[2]))
+   china.store[i] <- mean(rbinom(n=tab$n[3], size=1, prob=tab$prop.govt.encourage[3]))
+ }
> tab$se[1] <- sd(us.store)
> tab$se[2] <- sd(india.store)
> tab$se[3] <- sd(china.store)
> tab$country <- row.names(tab)
> tab <- tab[order(tab$country),]
> se.bars.ps1 <- aes(ymax = tab$prop.govt.encourage + tab$se, ymin = tab$prop.govt.encourage - tab$se)
>
> figS4.c<-ggplot(tab, aes(x=country, y=prop.govt.encourage)) + theme_grey() + scale_x_discrete(limits = tab$country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1","khaki","indianred2")), colour="black") + geom_errorbar(se.bars.ps1, width=0.3) +
+ ylab("Proportion Writing to Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12,
colour="black")) + xlab("") +
+ coord_flip() +
+ ggtitle("(C) Exp 1: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> ##Public Spending 2
> data2.w.pure.control.ind <- subset(data2.w.pure.control, Q142==3)
> dta4 <- melt(data2.w.pure.control.ind, measure.vars = c("fundus", "fundfor"))
> dta4 <- dta4[, (ncol(dta4)-1):ncol(dta4)]
> names(dta4) <- c("Country", "Write")
> dta4$Country <- ifelse(dta4$Country=="fundfor", "Foreign", "US")
> mean.info4 <- ddply(dta4, "Country", summarise, write.mean=mean(Write, na.rm=T))
>
> foreign.store <- rep(NA, 10000)
> US.store <- rep(NA, 10000)
> set.seed(201)
> for (i in 1:10000){
+   foreign.store[i] <- mean(sample(dta4$Write[1:196], size=196, replace=T, na.rm=T))
+   US.store[i] <- mean(sample(dta4$Write[197:392], size=196, replace=T, na.rm=T))

```

```
+ }
> mean.info4$se[1] <- sd(foreign.store)
> mean.info4$se[2] <- sd(US.store)
> se.bars4 <- aes(ymax = mean.info4$write.mean + mean.info4$se, ymin = mean.info4$write.mean - mean.info4$se)
>
> figS4.d<-ggplot(mean.info4, aes(x=Country, y=write.mean)) + theme_grey() + scale_x_discrete(limits = mean.info4$Country) +
+ geom_bar(stat="identity", fill=rev(c("steelblue1", "darkslategrey")), colour="black") + geom_errorbar(se.bars4, width=0.3) +
+ ylab("Proportion Support") + theme(axis.text.x = element_text(size=12), axis.text.y = element_text(size=12, colour="black")) +
+ xlab("") +
+ coord_flip() +
+ ggtitle("(D) Exp 2: Public Spending") + theme(plot.title = element_text(lineheight=1, face="bold"))
>
> S4 <- plot_grid(figS4.a,figS4.b,figS4.c,figS4.d)
>
>
>
```